

**Department of
Conservation and
Development**

30 Muir Road
Martinez, CA 94553

Phone: 1-855-323-2626

**Contra
Costa
County**

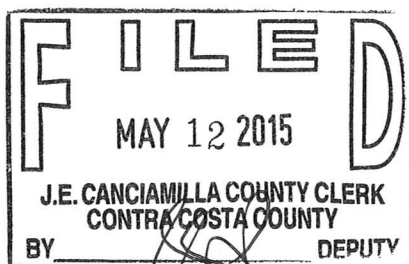


John Kopchik
Director

Aruna Bhat
Deputy Director

Jason Crapo
Deputy Director

Robert T. Calkins
Deputy Director



May 12, 2015

**NOTICE OF PUBLIC REVIEW AND INTENT
TO ADOPT A PROPOSED MITIGATED NEGATIVE DECLARATION**

County File No. CP 15-02

Pursuant to the State of California Public Resources Code and the "Guidelines for Implementation of the California Environmental Quality Act of 1970" as amended to date, this is to advise you that the Department of Conservation and Development of Contra Costa County has prepared an Initial Study for the following project:

PROJECT NAME: Alhambra Valley Road Safety Improvements

LEAD AGENCY: Contra Costa County Department of Conservation and Development

APPLICANT: Contra Costa County Public Works Department

LOCATION: Rancho La Boca Road and Ferndale Road, southwest of Martinez, north-central Contra Costa County (Figure 1)

ZONING: A-2 (General Agricultural), A-4 (Agricultural Preserve)

DESCRIPTION: Alhambra Valley Road is a rural road with winding turns and poor sight distance in some locations. The purpose of the project is to minimize the potential for injuries from vehicles running off the road which will also allow for bicyclists to ride outside the main travel way. The project consists of widening two segments; at Rancho La Boca Road (Site 1) and just west of Ferndale Road (Site 2). The project will improve these segments by providing four-foot wide paved shoulders and removing or relocating roadway obstacles, including utility poles, guardrails, trees, and landscaping, to provide a clear recovery zone for vehicles; roadway flashers will be installed in both directions at both sites. Cut and fill earthwork will be required to accommodate these proposed improvements and to improve sight distance at Site 1. Drainage improvements include installation of storm drain inlets and associated pipe connections, and installation of concrete headwalls and rock slope protection at an existing culvert at Site 2. Disturbed areas will be stabilized as necessary following construction. Construction activities will be generally limited to the hours between 7:00 a.m. to 5:00 p.m.; noise-

generating activities will be limited to 8:00 a.m. to 5:00 p.m. Construction of the project will require either one-way traffic control for four weeks or a two-week full road closure from just west of Ferndale Road to west of Rancho La Boca Road. Mail notifications will be sent to surrounding property owners prior to start of construction and prior to implementation of road closure, if needed. In addition, detour route signs will be posted seven days prior to start of construction at various locations in the project vicinity; emergency vehicles will have access at all times. Proposed right-of-way acquisitions will consist of sliver portions (varying between 5 and 30 feet) along the frontages of several properties to accommodate the widening. Permanent drainage and utility easements, and temporary construction easements will also be needed. Construction of the project is anticipated to start sometime between April and October in 2016 and take approximately three months to complete.

ENVIRONMENTAL EFFECTS: The Initial Study for the proposed project identified potentially significant impacts in the environmental area of Biological Resources, Cultural Resources, and Noise. Environmental analysis determined that measures were available to mitigate potential adverse impacts to insignificant levels. As a result, a Mitigated Negative Declaration (MND) has been prepared pursuant to Public Resources Code Section 21080(c), 21063.5, and Article 6 of the California Environmental Quality Act (CEQA) Guidelines.

Pursuant to the requirements of CEQA (CEQA Guidelines Section 15071) the MND describes the proposed project; identifies, analyzes, and evaluates the potential significant environmental impacts; and identifies measures to mitigate adverse environmental impacts. Mitigations identified in this document will ensure that the project will not cause a significant impact on the environment.

A copy of the Initial Study/Mitigated Negative Declaration (IS/MND) may be reviewed at the Contra Costa County Public Works Department, 255 Glacier Drive, Martinez, during normal business hours. You may also view the IS/MND on the County's webpage: <http://www.co.contra-costa.ca.us> (Click on Government, Departments H-Z, Public Works, Public Notices). All documents referenced in the IS/MND are available on request.

PUBLIC COMMENT PERIOD: The period for accepting comments on the adequacy of the environmental document is from **May 13, 2015 to June 11, 2015**. Any comments should be in writing and submitted to the following address and/or mail address:

Claudia Gemberling, Environmental Analyst II
Contra Costa County Public Works Department
255 Glacier Drive
Martinez, CA 94553
cgemb@pw.cccounty.us

The environmental document is expected to go before the County Board of Supervisors on **June 16, 2015**. To confirm the Board date, please contact Claudia Gemberling at (925) 313-2192.

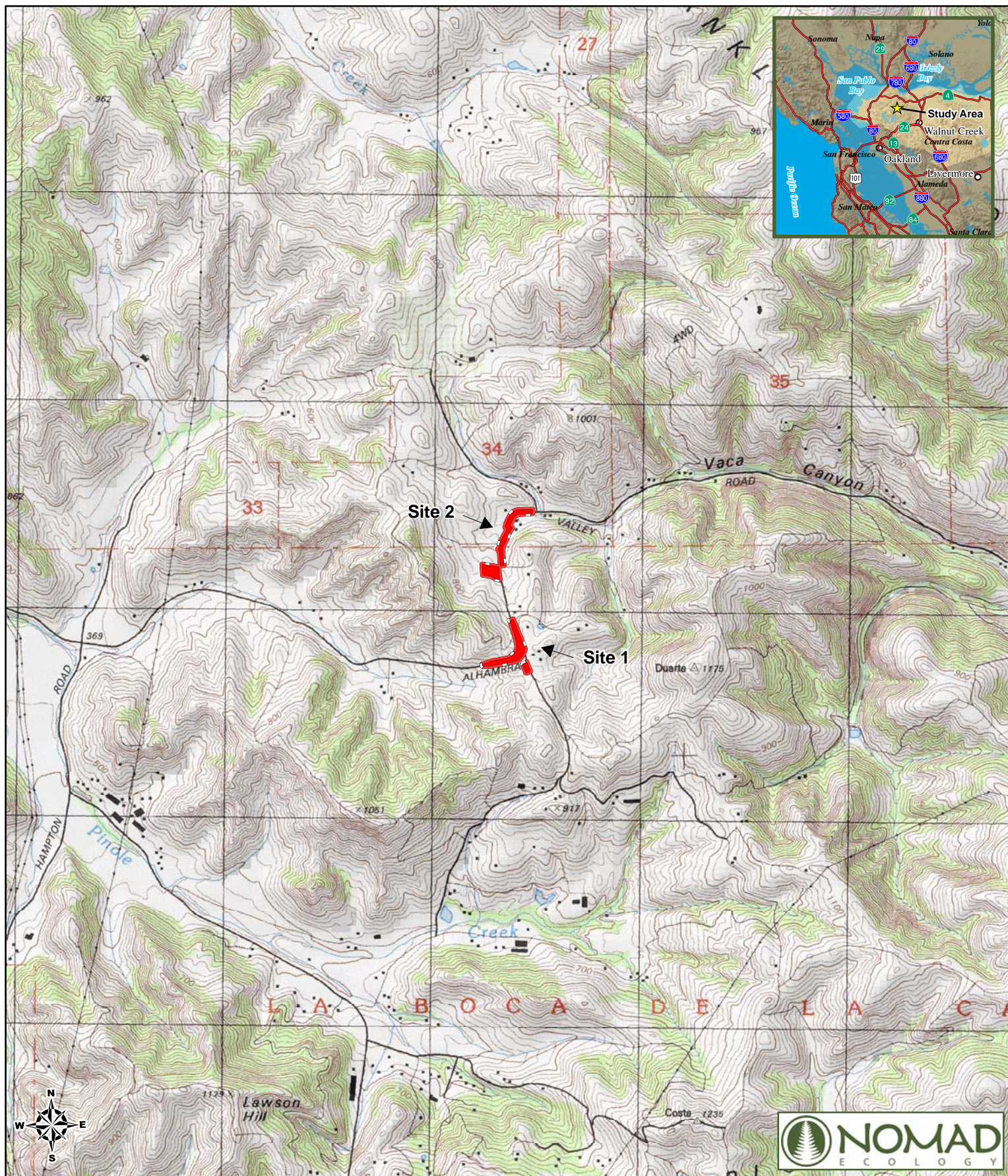
Attachments: Figure 1: Project Location
Figure 2: Project Impact Area Map

Environmental Checklist Form

1. **Project Title:**
Alhambra Valley Road Safety Improvements (at Rancho La Boca Road and Ferndale Road)
2. **Lead Agency Name and Address:**
Contra Costa County Department of Conservation and Development
30 Muir Road, Martinez, CA 94553
3. **Contact Person and Phone Number:**
Claudia Gemberling, Environmental Analyst II, (925) 313-2192
Contra Costa County Public Works Department
4. **Project Location:**
Between Martinez and Pinole, north-central Contra Costa County (Figure 1)
5. **Project Sponsor's Name and Address:**
Contra Costa County Public Works Department
255 Glacier Drive, Martinez CA 94553
6. **General Plan Designation:**
AL (Agricultural Lands)
7. **Zoning:**
A-2 (General Agricultural), A-4 (Agricultural Preserve)
8. **Project Description:**
Alhambra Valley Road is a rural road with winding turns and poor sight distance in some locations. The purpose of the project is to minimize the potential for injuries from vehicles running off the road along these two segments of Alhambra Valley Road. The Contra Costa County Public Works Department (CCCPWD) is proposing to widen two segments; one located at Rancho La Boca Road (Site 1) and the other approximately 300 feet west of Ferndale Road (Site 2) (Figure 2). The project will improve these segments by providing paved shoulders and removing and relocating roadway obstacles to provide a clear recovery zone for vehicles which will also allow for bicyclists to ride outside the main travel way.

Site 1 begins approximately 600 feet north of the intersection with Rancho La Boca Road and continues around a curve to approximately 600 feet west of the intersection. Pavement widening would create four-foot wide paved shoulders for approximately 1,000 feet. There would also be roadside drainage ditches on both sides of the road, and roadway flashers installed in both directions. Utility poles and guardrails would be relocated, and two roadside native cottonwood trees would need to be removed. Cut and fill earthwork will be necessary to accommodate these proposed improvements and to improve sight distance. The earthwork will require removal of approximately 2,200 cubic yards of soil that will be mostly off-hauled from the project site and approximately 200 cubic yards of soil would remain on-site to build up the vertical fill areas.

Site 2 begins approximately 300 feet west of the intersection of Ferndale Road and continues around a curve to approximately 700 feet to the south. Pavement widening will create four-foot wide paved shoulders on both sides for a distance of about 360 feet. There would be an additional four-foot wide



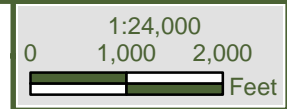
August 2014

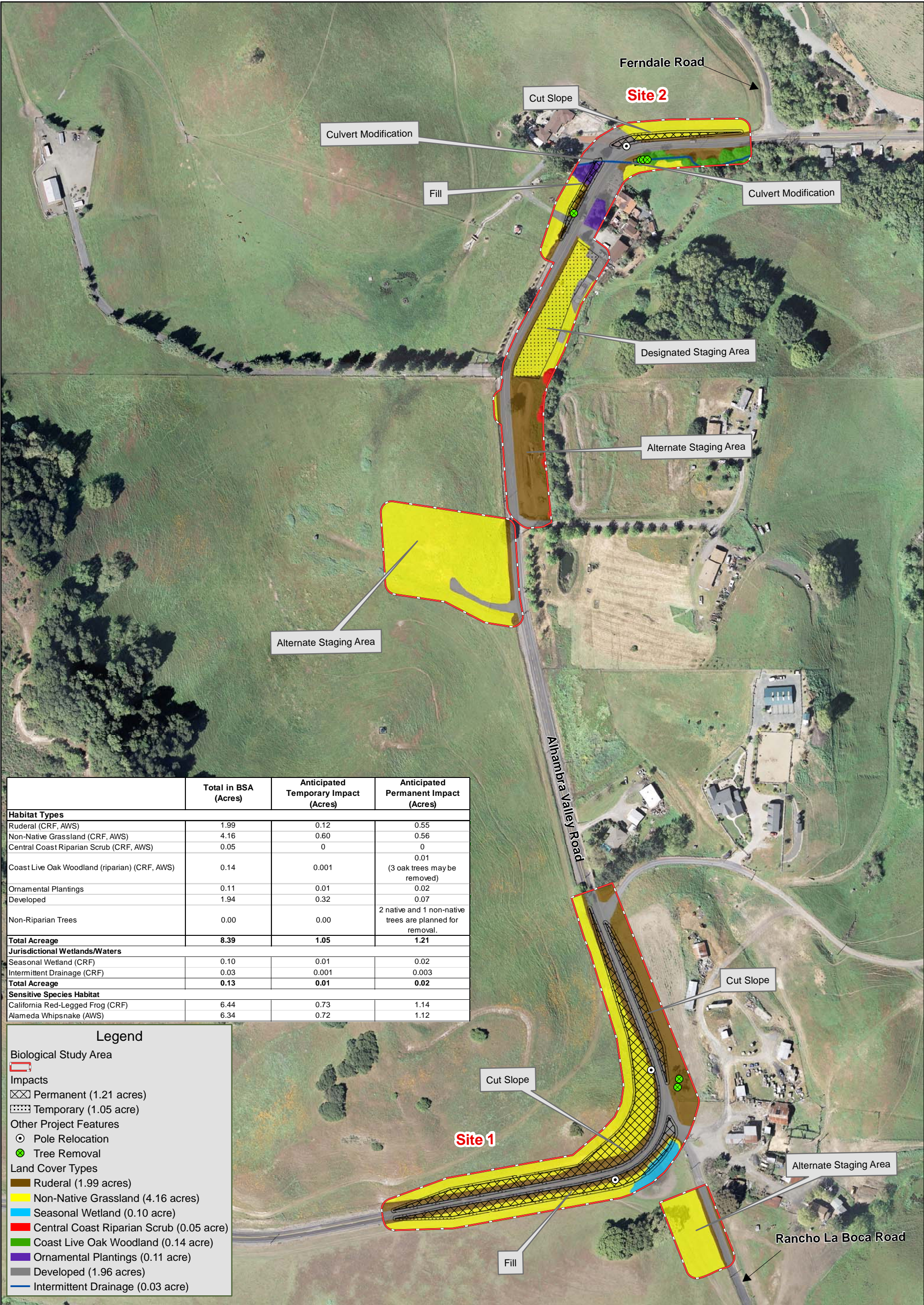
Natural Environment Study

Legend

█ Biological Study Area (BSA)

Figure 1
Project Location
 Alhambra Valley Road Safety Improvements Project
 at Rancho La Boca Road and Ferndale Road
 Contra Costa County Public Works Department





	Total in BSA (Acres)	Anticipated Temporary Impact (Acres)	Anticipated Permanent Impact (Acres)
Habitat Types			
Ruderal (CRF, AWS)	1.99	0.12	0.55
Non-Native Grassland (CRF, AWS)	4.16	0.60	0.56
Central Coast Riparian Scrub (CRF, AWS)	0.05	0	0
Coast Live Oak Woodland (riparian) (CRF, AWS)	0.14	0.001	0.01 (3 oak trees may be removed)
Ornamental Plantings	0.11	0.01	0.02
Developed	1.94	0.32	0.07
Non-Riparian Trees	0.00	0.00	2 native and 1 non-native trees are planned for removal.
Total Acreage	8.39	1.05	1.21
Jurisdictional Wetlands/Waters			
Seasonal Wetland (CRF)	0.10	0.01	0.02
Intermittent Drainage (CRF)	0.03	0.001	0.003
Total Acreage	0.13	0.01	0.02
Sensitive Species Habitat			
California Red-Legged Frog (CRF)	6.44	0.73	1.14
Alameda Whipsnake (AWS)	6.34	0.72	1.12

Legend

Biological Study Area

Impacts

Other Project Features

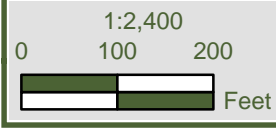
Land Cover Types

August 2014

Natural Environment Study



Figure 2
Project Impact Area
Alhambra Valley Road Safety Improvements Project
at Rancho La Boca Road and Ferndale Road
Contra Costa County Public Works Department



unpaved shoulder along the westbound travel lane 300 feet west of Ferndale Road. Utility poles, fences, and guardrails will be relocated; one non-native roadside cedar tree may need to be removed as well as sliver portions of residential landscaping adjacent to the road; and roadway flashers will be installed in both directions. Drainage improvements include installation of storm drain inlets and associated pipe connections, and installation of concrete headwalls and rock slope protection at the openings of an existing 42-inch diameter culvert of a tributary. The deteriorating culvert will either be reinforced or replaced in-kind. Three native oak trees within the tributary just east of the culvert may also be removed to accommodate the culvert improvements.

Right-of-way (ROW) acquisitions will be required for these improvements which will consist of sliver portions (varying between 5 and 30 feet) along the frontages of several residential properties along Alhambra Valley Road to accommodate the widening. Permanent drainage and utility easements, and temporary construction easements will also be needed from the parcels identified in Table 1.

Table 1: Proposed ROW Acquisitions and Permanent and Temporary Easements

Address	APN	ROW Acquisition	Drainage Easement	Utility Easement	Temporary Construction Easement
5830	362-240-005		X		X
	362-240-010				X
	362-240-011				X
5835	362-240-008		X		X
5900	365-020-023	X		X	X
	365-020-031	X			X
5889	365-040-025	X			

Standard construction equipment will be used, including but not limited to: excavators, graders, scrapers, loaders, sweepers/scrubbers, plate compactors, rollers, backhoes, and pavers. Several construction staging areas have been identified in the project area (Figure 2). Disturbed areas will be stabilized as necessary following construction.

Construction activities will be generally limited to the hours between 7:00 a.m. to 5:00 p.m.; noise-generating activities will be limited to 8:00 a.m. to 5:00 p.m. Construction of the project will require either one-way traffic control for four weeks or a two-week full road closure from just west of Ferndale Road to west of Rancho La Boca Road. Mail notifications will be sent to surrounding property owners prior to start of construction and prior to implementation of road closure, if needed. In addition, detour route signs will be posted at various locations in the project vicinity 7 days prior to the closure; emergency vehicles will have access at all times.

Construction of the project is anticipated to start sometime between April and October in 2016 and take approximately three months to complete.

9. **Surrounding Land Uses and Setting:**

The project area is located within a rural area; land uses include large-parcel residences, rangeland, agricultural, and open space. The land immediately surrounding the project segment at Site 1 consists of rangeland along the north, south and west sides of the road and residential properties to the northeast, east, and southeast. The project segment at Site 2 is immediately adjoined by a residential property to the north and rangeland beyond, Alhambra Valley Road and residential properties to the east, Alhambra Valley Road and residential properties to the south with rangeland beyond (Figure 2).

10. **Other public agencies whose approval is required (e.g. permits, financing, approval, or participation agreement):**

Federal Highway Administration (FHWA), California Department of Transportation (Caltrans)

The project will be partially funded through the Highway Safety Improvement Program (HSIPL 5928 (118)). Caltrans, on behalf of the FHWA, is the lead agency for compliance with the National Environmental Policy Act (NEPA). The project has been determined to be a Categorical Exclusion under NEPA.

U.S. Army Corps of Engineers (USACE)

Clean Water Act, Section 404, Nationwide Permit

Section 404 of the Clean Water Act regulates discharges of dredged or fill material into jurisdictional waters of the U. S., including wetlands. There will be minimal permanent and temporary impacts to a seasonal wetland at Site 1 and a tributary at Site 2. The impacts would be authorized under the Nationwide Permit program (USACE 2015). Therefore, the USACE San Francisco District will be notified for authorization.

Regional Water Quality Control Board (RWQCB)

Clean Water Act, Section 401, Water Quality Certification

Section 401 of the Clean Water Act also regulates projects that will discharge dredged or fill material into jurisdictional waters of the U.S., and waters of the state, including wetlands when a federal permit or license will be issued (RWQCB 2015). As noted above, there will be minimal permanent and temporary impacts to a seasonal wetland at Site 1 and a tributary at Site 2. The impacts would be authorized under a Water Quality Certification. Therefore, the San Francisco Bay RWQCB will be notified for authorization.

State Water Resources Control Board (SWRCB)

National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2012-0006-DWQ) (Construction General Permit [CGP])

Projects that disturb one or more acres of soil or disturb less than one acre but are part of a larger development that in total disturbs one or more acres, are required to obtain coverage under this permit which requires a fee and submittal of a Stormwater Pollution Prevention Plan to identify best management practices (BMPs) for water pollution control (SWRCB 2015). If the project will disturb less than 5 acres, the permit allows for a waiver certification if the project will occur when the rainfall erosivity factor value is less than five (i.e., typically occurring in dry seasons when rains are less frequent and less force). At this time, it is anticipated that the project will disturb approximately 1.6 acres. Therefore, a waiver certification will be requested from the SWRCB. However, project specifications will still require preparation of a Water Pollution Control Plan to identify applicable water pollution control BMPs.

California Department of Fish and Wildlife (CDFW)

California Endangered Species Act, Section 2081 (b) and (c), Incidental Take Permit

The project is located within designated critical habitat for Alameda whipsnake, a state-listed threatened species, which will have the potential to result in incidental take (CDFW 2015a). Therefore, a request for an Incidental Take Permit will be submitted to the CDFW Bay Delta Region office.

Fish and Game Code, Section 1602, Lake and Streambed Alteration Agreement

Notification is required when an activity will substantially divert or obstruct the natural flow of any river, stream or lake (CDFW 2015b). There will be minimal impacts to the tributary from the proposed culvert improvements at Site 2. Therefore, the CDFW Bay Delta Region office will be notified for authorization.

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture and Forestry Resources	<input type="checkbox"/> Air Quality
<input type="checkbox"/> Biological Resources	<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Geology/Soils
<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Hazards & Hazardous Materials	<input type="checkbox"/> Hydrology/Water Quality
<input type="checkbox"/> Land Use/Planning	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Noise
<input type="checkbox"/> Population/Housing	<input type="checkbox"/> Public Services	<input type="checkbox"/> Recreation
<input type="checkbox"/> Transportation/Traffic	<input type="checkbox"/> Utilities/Service Systems	<input type="checkbox"/> Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigations measures that are imposed upon the proposed project, nothing further is required.



Signature

Contra Costa County Department of Conservation and Development

5-12-15

Date

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EVALUATION OF ENVIRONMENTAL IMPACTS:

I. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Contra Costa County has two main scenic resources in addition to many localized scenic features: (1) scenic ridges, hillsides, and rock outcroppings; and (2) the San Francisco Bay/Delta estuary system. Throughout much of the County, there are significant topographic variations in the landscape. The largest and most prominent of these are the hills that form the backdrop for much of the developed portions of the area. Views of these major ridgelines help to reinforce the rural feeling of the County's rapidly growing communities. These major ridges provide an important balance to current and planned development (Contra Costa County 2005a).

The area surrounding the project site is rural in character with large-parcel residences and rangelands. The surrounding undeveloped Briones hills and ridges provide a natural rural setting and scenic backdrops. Alhambra Valley Road is designated as a County scenic route as this road provides expansive, unobstructive views of the rolling hills and ridgelines (Contra Costa County 2005a). There are no designated or eligible cultural, historical or natural resources that could be considered important visual resources within the project area as reported in the technical studies prepared for this project (Condor Country Consulting, Inc. 2014a,b, JRP Historical Consulting 2014, California Office of Historic Preservation 2014, Nomad Ecology 2014a).

a) Would the project have a substantial adverse effect on a scenic vista?

The surrounding rolling hills and ridges provide a rural scenic backdrop from the project area. The project will not have a substantial adverse effect on a scenic vista as the project will result in limited road widening and realignment of an existing road. Therefore, the project will have **no impact**.

b) Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The project site is not located within a state scenic highway or an officially designated county scenic highway (Caltrans 2015a). However, the Contra Costa County General Plan identifies Alhambra Valley Road as a scenic route. Most scenic routes depend on natural landscape qualities for their aesthetics and many formally designated scenic routes have been established in predominately rural areas in the past, but neither their natural beauty nor rural settings are necessary to the designation of scenic routes (Contra Costa County 2005a). The project will require removal of two roadside native cottonwood trees

at Site 1, and may require removal of 1 non-native cedar roadside tree and three native riparian oak trees within the tributary at Site 2. Removal of the oak trees within the tributary would be mitigated as described in the Biological Resources section. These trees are not considered scenic resources as they are not native heritage trees or trees of local significance. Further, there are no designated or eligible cultural, historical or natural resources that could be considered important scenic resources within the project area. Therefore, project impacts will be **less than significant**.

- c) *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

While the project will not substantially degrade the existing visual character or quality of the site and surrounding area, the project will require cutting into the existing cut slope along the north side of the road at Site 1 to accommodate the road realignment for the shoulder widening. The existing slope will be cut at a 1.5 (horizontal):1 (vertical) (1.5H:1V) or flatter slope which will require removing approximately 1,000 cubic yards of soil from the face of the existing cut slope. The cut slope will be hydroseeded with a native grassland mix which will re-vegetate within the same year construction is completed and therefore will not degrade the visual character of the area. Construction activities associated with the project will impact the visual character of this area but it will be temporary. Therefore, project impacts will be **less than significant**.

- d) *Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

Traffic-calming roadway flashers will be installed at the approaches to the curves at each project segment which will create a permanent source of light however it would not adversely affect day or nighttime views in the area as it will not be substantial. Construction will take place during the daylight hours and therefore, the project will not create additional nighttime light source. However, nighttime work may occur if there is a full road closure but it would be short-term as the full road closure would occur over a two-week period and would likely occur only at Site 1 and not Site 2 due to the proximity of residences to the road (Huerta pers. comm. 2015). Therefore, project impacts will be **less than significant**.

II. AGRICULTURE AND FOREST RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland, to non-agricultural use <u>or</u> conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Background

The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 in response to a critical need for assessing the location, quality, and quantity of agricultural lands and conversion of these lands over time. FMMP is a non-regulatory program that provides a consistent and impartial analysis of agricultural land use and land use changes throughout California (California Department of Conservation [CDC] 2015).

In order to be shown on FMMP's Important Farmland Maps as Prime Farmland and Farmland of Statewide Importance land must have been used for irrigated agricultural production at some time during the four years prior to the Important Farmland Map date and must meet physical and chemical soil criteria as determined by the Natural Resource Conservation Service. Prime Farmland has the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Farmland of Statewide Importance is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Unique Farmland is of lesser quality soils used for the production of the state's leading agricultural crops; this land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California (CDC 2015).

In addition, land may be enrolled under the 'Prime Agricultural Land' designation under the state's Williamson Act if it meets certain economic or production criteria. The California Land Conservation Act of 1965, commonly known as the Williamson Act (Act), created a program to help counties preserve agricultural land and open space by offering a tax incentive to property owners. The Act provides an arrangement where private landowners voluntarily restrict their land to agricultural and compatible open space uses under a contract with the County (Contra Costa County Department of Conservation and Development 2015).

CEQA Guidelines address farmland conversion impacts directly in two ways; first, cancellation of Williamson Act contracts for parcels exceeding 100 acres is an action considered to be of “statewide, regional, or area-wide significance, and thus subject to CEQA review (CEQA Guidelines Section 15206(b)(3)). Second, a project that would convert prime agricultural land to non-agricultural use or impair the agricultural productivity would normally have a significant effect on the environment.” No set acreage of prime farmland conversion has been determined by case law or regulatory framework which would constitute a significant impact (California Natural Resources Agency 2015).

- a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

The project segments are adjoined by agricultural-zoned lands however the lands are not considered Prime Farmland, Unique Farmland or Farmland of Statewide Importance as shown on the Contra Costa County Important Farmland Map (CDC 2012). Therefore, the project will have **no impact**.

- b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?*

Three adjacent parcels zoned as agricultural lands are designated as Agricultural Preserve lands (365-240-008, 010, 011) at Site 2 and are also protected by a Williamson Act contract (Contra Costa County Mapping Center 2015; pers. comm. Osborne 2015). The project will convert sliver portions of these parcels that occur immediately adjacent to the road for the new right-of-way to accommodate the improvements. The conversion does not conflict with the County General Plan goals and policies as the project will eliminate structural and geometric design deficiencies (Contra Costa County 2005b). Further, California Government Code Section 51292(b) allows for public improvements if no other land outside the agricultural preserve is reasonably feasible to locate the public improvement (CDC 2015a, b). As required by Government Code Section 51291(b), the Director of the California Department of Conservation and the Contra Costa County Department of Conservation and Development will be notified of the proposed acquisition, and a subsequent notification within 10 working days upon completion of the acquisition (CDC 2015a, b). Therefore, project impacts will be **less than significant**.

- c) *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

The project will not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)) because no forest land or timberland is present within or adjacent to the project area. Therefore, the project will have **no impact**.

- d) *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

The project will not result in the loss of forest land or conversion of forest land to non-forest use because forest land is not present within or adjacent to the project area. Therefore, the project will have **no impact**.

- e) *Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use?*

The project will not involve other changes in the existing environment that would result in conversion of farmland to non-agriculture use as the project is limited to correcting the design deficiencies for road safety. Therefore, project impacts will be **less than significant**.

III. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Background

The federal Clean Air Act (CAA) requires the U. S. Environmental Protection Agency (USEPA) to set National Ambient Air Quality Standards (NAAQS) for six common criteria air pollutants: particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. Of the six pollutants, particle pollution and ground-level ozone are the most widespread health threats. The CAA requires the USEPA to designate areas as meeting (attainment) or not meeting (nonattainment) the standards (USEPA 2015). In addition, the California Health and Safety Code requires the California Air Resources Board (CARB), a division of the California EPA, to establish and periodically review area designation criteria for state standards, which are more stringent. The project is located within the San Francisco Bay Area Air Basin which is currently designated as nonattainment for national and state ozone and particulate matter standards (Bay Area Air Quality Management District [BAAQMD] 2015a,b).

The CAA also requires states to develop a general plan to attain and maintain the NAAQS and a specific plan to attain the standards for each nonattainment area. The CARB and the BAAQMD periodically prepare and update these plans in cooperation with regional agency partners. These plans usually define control strategies to reduce air pollutant emissions from industrial facilities, commercial processes, motor vehicles, and other sources which are typically implemented through a combination of regulations enforced by the BAAQMD, grant and incentive programs, public education and outreach, and partnerships with other agencies and stakeholders. The current air quality plan is the 2010 Clean Air Plan which includes the most recent ozone attainment plan and focuses on reduction of ozone, particulate matter, and greenhouse gases (GHGs) (BAAQMD 2010a).

In order to address GHGs, which include criteria air pollutants (regional pollutants) and toxic air contaminants (local pollutants), the BAAQMD adopted CEQA thresholds of significance and updated its 1999 CEQA Air Quality Guidelines in 2010 to assist lead agencies in evaluating air quality impacts to determine if a project's individual emissions would be cumulatively considerable. Various modeling tools are used to estimate emissions based on the type of project (i.e., land use developments, linear transportation and utility projects) (BAAQMD 2010b, 2011). However, the BAAQMD's 2010 adopted

thresholds were challenged in a lawsuit and in March 2012 the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the 2010 thresholds of significance. As such, the 2010 thresholds are not formally in place pending CEQA review and have been pulled from the 2011 CEQA Guidelines which were updated in 2012 to omit the thresholds to reflect this ruling (BAAQMD 2012). In the interim, while the BAAQMD has indicated that Lead Agencies may rely on BAAQMD's updated CEQA Guidelines for assistance in calculating air pollution emissions, obtaining information regarding health impacts of air pollutants, and identifying potential mitigation measures, the BAAQMD suggests that Lead Agencies determine appropriate thresholds for each project, and consider the 1999 thresholds along with the evidence in record for the project to determine air quality impacts. The deferral of the 2010 thresholds was based on a procedural action and not on the scientific merits of the thresholds. For this reason, the 2010 thresholds were used to determine the project impacts. The 1999 and 2012 CEQA Guidelines were also consulted (BAAQMD 1999, 2010b, 2012).

In addition to criteria air pollutants, naturally-occurring asbestos (NOA), a toxic air contaminant, is also an air pollutant of concern. It can cause lung cancer and mesothelioma which is dependent upon the type of asbestos fibers inhaled and exposure levels. NOA is typically associated with serpentinite and ultramafic rocks formed in high-temperature environments below the surface of the earth when metamorphic conditions are right for the formation of asbestos. The BAAQMD requires that projects implement the best available dust control measures where NOA is likely to be found in order to reduce dust emissions as well as notification to the BAAQMD (BAAQMD 2015c, CARB 2015). The project area is not located within an area identified as having rocks associated with NOA (CDC 2000).

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

There will be no operational air quality impacts as the project will not increase capacity of the road and thus will not contribute to an increase of air pollutant emissions. However, construction of the project will result in temporary increases of air pollutant emissions. Construction-related activities generate criteria air pollutants including carbon monoxide, sulfur dioxide, particulate matter as well as precursor emissions such as reactive organic gases and oxides of nitrogen and GHGs from equipment and vehicle exhaust, fugitive dust from soil movement, and off-gas emissions from asphalt paving. Therefore, anticipated construction emissions such as areas of disturbance, vehicle and truck trips, construction equipment to be used, duration of use, and other features were quantified by an air quality specialist using the Sacramento Metropolitan Air Quality Management District Road Construction Emissions Model (RoadMod) (version 7.1.5.1) to determine if project-related construction emissions exceed the BAAQMD 2010 significance thresholds (CardnoEntrix 2014). The anticipated types of construction equipment that will be used include excavators, graders, scrapers, loaders, sweepers/scrubbers, plate compactors, rollers, backhoes, and pavers (although would not be used during all construction phases). Diesel equipment would be operated for no more than about five hours per day for five days per week; some equipment would be operated less than five hours per day.

The total project site is approximately 1.6 acres of which approximately 0.75 acre consists of the existing paved roads. Approximately 2,200 cubic yards of soil will be excavated and mostly off-hauled from the project site and approximately 200 cubic yards would remain on site for the vertical fills. The results of the model (as shown in Table 2) indicate that estimated project construction emissions would not exceed thresholds. Further, project contract specifications require that the construction contractor comply with applicable air pollution control regulations and practices such as limiting equipment idling time, implementing dust control measures, and ensuring all construction machinery and vehicles are properly tuned. In addition, signs with contact name and phone number will be publicly posted for construction emission complaints. The project will not conflict with or obstruct implementation of the Clean Air Plan

as project-related emissions were estimated in accordance with the BAAQMD Air Quality Guidelines and determined to be below thresholds. Therefore, project impacts will be **less than significant**.

Table 2: Project Construction Emissions Analysis¹

Construction Phases	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM ₁₀ Exhaust (lbs/day)	PM _{2.5} Exhaust (lbs/day)	CO ₂ (lbs/day)	Fugitive Dust	
							PM ₁₀ (lbs/day)	PM _{2.5} (lbs/day)
Grubbing/Land Clearing	2.3	11.5	22.3	1.1	1.0	2,211	16.0	3.3
Grading/Excavation	3.0	14.7	33.5	1.6	1.4	3,767	8.0	1.7
Drainage/Utilities/ Sub-Grade	4.2	21.3	40.7	2.2	2.0	4,327	8.0	1.7
Paving	2.8	16.0	23.9	1.5	1.4	2,931	-	-
Project Maximum (pounds/day)	4.2	21.3	40.7	2.2	2.0	4,327	16.0	3.3
BAAQMD CEQA Thresholds²	54	NA	54	82	54	NA	NA	NA
Less than Threshold?	Yes		Yes	Yes	Yes			

¹Sacramento Metropolitan Air Quality Management District Road Construction Emissions Model (RoadMod) (version 7.1.5.1)

²BAAQMD 2011

NA: Not applicable – BAAQMD has no formal guidance for evaluation of construction emissions for these pollutants given that volumes necessary to result in a health-based impact are rarely reached due to construction traffic for CO, NO₂ and implementation of BMPs for PM₁₀ and PM_{2.5} (BAAQMD 2009); ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; PM₁₀: particulate matter (10 microns or less); PM_{2.5}: particulate matter (2.5 microns or less); CO₂: carbon dioxide.

- b) *Would the project violate any air quality standard or contribute to an existing or projected air quality violation?*

The project will not violate any air quality standard or contribute to an existing or projected air quality violation as estimated project-related emissions were determined not to exceed the daily construction-related thresholds as discussed above in item (a). Further, the project will comply with project contract requirements for air pollution control practices. Therefore, project impacts will be **less than significant**.

- c) *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

The project is located within the San Francisco Bay Area Air Basin which is currently designated as nonattainment for national and state ozone and particulate matter standards (BAAQMD 2015b). The project will not result in a cumulatively considerable net increase of any criteria pollutant as estimated project-related emissions were determined not to exceed the daily construction-related thresholds as discussed above in item (a). Further, the project will comply with project contract requirements for air pollution control practices. Therefore, impacts will be **less than significant**.

- d) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Sensitive receptors are locations of human populations such as residences, hospitals, schools, day care centers, retirement homes, and convalescence facilities where there is reasonable expectation of continuous human exposure to poor air quality standards (CARB 2005). Construction-related emissions can expose sensitive receptors to toxic air contaminants (TAC), including diesel particulate matter

emissions which are considered to be the most significant potential TAC for construction projects (BAAQMD 2010b). Individuals particularly vulnerable to diesel particulate matter are children and the elderly.

The BAAQMD CEQA significance threshold for potential effects of diesel particulate matter applies to the hypothetical exposure of a person continuously for 70 years. However, the BAAQMD considers fine particulate matter (PM_{2.5}) to be the most significant TAC in terms of its potential to cause a wide range of health effects and recommends the analysis of TACs from construction activities to consider the types of off-site receptors and their proximity to construction activity, construction duration, quantity and types of diesel-powered equipment, number of hours of equipment operation, location(s) of equipment use, distance to nearest off-site sensitive receptors, orientation with respect to the dominant wind direction, location of equipment staging area, and amount of on-site diesel-generated PM_{2.5} exhaust (CardnoEntrix 2014).

The project area is rural in nature with large-parcel residences. The closest residence to Site 1 is a residence located about 175 feet to the southeast. Another residence is located on Alhambra Valley Road about 190 feet north of the Site 1. One residence is located about 90 feet north of the Site 2, and another within 50 feet just southeast of the curve. A number of barns and agricultural buildings are located along Alhambra Valley Road between Sites 1 and 2 (CardnoEntrix 2014).

Several potential construction staging areas were identified however not all staging areas are anticipated to be used (Figure 2). At Site 1 the potential staging area would be along Rancho La Boca Road, about 70 feet southwest of the nearest residence on the other side of Ranch La Boca Road. Two potential staging areas were identified south of Site 2, one on the west side of Alhambra Valley Road and one on the east side. At its closest point, the staging area on the east side would be about 210 feet south of the nearest residence (CardnoEntrix 2014).

Construction of the project will take approximately 3 months to complete. The greatest use of diesel-powered machines would occur during the grubbing/land clearing (approximately five days) and grading/excavation (approximately 23 days) phases. The total time for maximum diesel equipment use would therefore be about 1 month. As noted above in item (a), not all of this equipment would be in use during all of the construction phases and would not operate for more than 5 hours per day five days per week; some equipment would operate less than 5 hours per day (CardnoEntrix 2014).

Based on the nearest available weather records from the Buchanan Field Airport in Concord (WeatherSpark 2014), the wind is most often out of the south (19% of the time), west (14% of the time), and southwest (11% of the time). The wind is least often out of the east (2% of the time), southeast (2% of the time), and northeast (4% of the time) (CardnoEntrix 2014).

As described above, the nearest residence to Site 1 is located to the southeast. Winds coming from the northwest and north would therefore have the potential to carry construction emissions toward this residence. Based on the wind patterns, emissions would be expected to be carried away from this residence as the wind is most often out of the south, west, and southwest. Another residence is north of the Site 1 area. Winds out of the south could carry construction emissions toward this residence during these times. At Site 2, winds out of the southwest could carry construction emissions toward these residences (CardnoEntrix 2014).

Based on the construction emissions analysis, the maximum amount of fine particulate matter exhaust, 2.5 microns or less (PM_{2.5}), for any of the construction phases, is estimated to be 2.0 lbs/day as shown in

Table 2 which is far less than the BAAQMD CEQA threshold of 54 lbs/day. As noted above, the time of potential exposure would be very short and the nearest residences to the construction areas are located largely downwind of construction activities. The average prevailing winds for the area indicate that residences would only be downwind a small percentage of the time (CardnoEntrix 2014). Further, implementation of the project contract requirements for air pollution control practices (i.e., dust control) as discussed above in item (a) would greatly reduce fine particulate matter. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations and thus project impacts would be **less than significant**.

e) Would the project create objectionable odors affecting a substantial number of people?

The operational aspects of the project will not generate any objectionable odors as additional travel lanes will not be created. However, construction equipment exhaust and asphalt paving operations may create objectionable odors but will be short term as described above. Further, implementation of the project air pollution control requirements described above will minimize construction-related odors. Therefore, project impacts will be **less than significant**.

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IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Background

In 1973, the federal Endangered Species Act (ESA) was passed by Congress to protect ecosystems supporting special-status species to be administered by the U. S. Fish and Wildlife Service (USFWS). The California Endangered Species Act was passed as a parallel act to be administered by the California Department of Fish and Wildlife (CDFW). Special-status plant and wildlife species are defined as those species listed as Endangered, Threatened, or Proposed for listing or are designated as Fully Protected species under one or more of the following regulatory status:

- Federal Endangered Species Act, as amended (Code of Federal Regulations, Title 50, Section 17);
- California Endangered Species Act (California Code of Regulations Title 14, Section 670.5);

- California Fish and Game Code (Section 1901, 2062, 2067, 3511, 4700, 5050, and 5515);
- Species considered to be rare or endangered under the conditions of Section 15380 of the CEQA Guidelines such as those identified in the *Inventory of Rare and Endangered Vascular Plants of California* by the California Native Plant Society (CNPS) (Native Plant Protection Act of 1977); and
- Other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing, or rejection for state or federal status such as Species of Special Concern (SSC) designated by the CDFW as well as locally rare species defined by CEQA Guidelines 15125(c) and 15380, which may include species that are designated as sensitive, declining, rare, locally endemic or as having limited or restricted distribution by various federal, state, and local agencies, organizations, and watchlists such as those identified in the CDFW California Natural Diversity Database; as well as birds and raptors protected under the Federal Migratory Bird Treaty Act (16 U.S.C. 703-711) (Executive Order 13186).

Environmental Setting

Qualified biologists conducted a habitat assessment to identify habitats within and around the project area to determine if sensitive habitats, natural communities, and wetlands and waters of the U.S. occur as well as potential presence of special-status species. Considering that this project will receive federal aid from Caltrans, the federal lead agency on behalf of the Federal Highway Administration, results of the habitat assessment were prepared in accordance with Caltrans guidance for compliance with the National Environmental Policy Act and reported using Caltrans report templates (*Natural Environment Study* and *Biological Assessment*) (Nomad Ecology 2014a, b).

The habitat assessment included several field visits to assess habitats, presence of special-status wildlife and plant plants, and natural communities. The habitat assessment was conducted in November 2013, rare plant survey in April 2014, and wetland delineation in May 2014. To prepare for the field visits, biologists reviewed the existing resource information to evaluate whether special-status species or other sensitive biological resources (e.g., wetlands) could occur in the study area and vicinity (Nomad Ecology 2014a):

Habitats within the project area and surrounding area consists of ruderal, non-native grassland, seasonal wetland, Central Coast riparian scrub, coast live oak woodland, ornamental plantings associated with residential residences, and developed areas such as roads and residential buildings (Figure 2). Based on the results of the resource information search and habitat assessment, special-status species that have the potential to occur in the project vicinity are listed in Table 3 (Nomad Ecology 2014a):

Table 3: Special-Status Species that Have the Potential to Occur in Project Area

Species	Listing Status Federal/State	Potential to Occur in Project Area
Wildlife		
Birds/Raptors		
Allen's hummingbird (<i>Selasphorus sasin</i>)	MBTA/BCC, ABC	Possible
Cooper's hawk (nesting) (<i>Accipiter cooperii</i>)	MBTA/WL	Possible
Ferruginous hawk (wintering) (<i>Buteo regalis</i>)	MBTA/WL, BCC	Possible
Golden eagle (nesting, wintering) (<i>Aquila chrysaetos</i>)	MBTA, BGEPA/ WL, FP, BCC	Possible
Grasshopper sparrow (nesting) (<i>Ammodramus savannarum</i>)	MBTA/SSC	Possible
Nuttall's woodpecker (nesting) (<i>Picoides nuttallii</i>)	MBTA/SA, ABC, BCC	Possible
Oak titmouse (nesting) (<i>Baeolophus inornatus</i>)	MBTA/SA, ABC	Possible
White-tailed kite (nesting) (<i>Elanus leucurus</i>)	MBTA/FP	Possible
Mammals		
Pallid bat (<i>Antrozous pallidus</i>)	-/SSC, WBWG-H	Possible
San Francisco dusky-footed woodrat (<i>Neotoma fuscipesannectens</i>)	-/SA	Possible
Reptiles		
Alameda whipsnake (<i>Masticophis lateralis euryxanthus</i>)	T, CH/T	Possible
Western pond turtle (<i>Emys marmorata</i>)	-/SA	Possible
Invertebrates		
Bridge's coast range shoulderband (<i>Helminthoglypta nickliniana bridgesi</i>)	-/SA	Possible
Amphibians		
California red-legged frog (<i>Rana draytonii</i>)	T, CH/SSC	Possible
Fish		
None		
Plants		
Santa Cruz tarplant (<i>Holocarpha macradenia</i>)	T/CE/CNPS 1B.1	Not observed in November 2013
Big-scale balsamroot (<i>Balsamorhiza macrolepis</i>)	-/-/CNPS 1B.2	Not observed in April 2014
Bristly leptosiphon (<i>Leptosiphon acicularis</i>)	-/-/CNPS 4.2	Not observed in April 2014

(E) Endangered; (T) Threatened; (CE) Candidate for listing as Endangered; (CH) Critical Habitat; (SSC) Special Species of Concern; (SA) "Special Animals"; (MBTA) Migratory Bird Treaty Act; (FP) Fully Protected; (WL) Watch List; (BCC) U.S. Fish and Wildlife Service Birds of Conservation Concern; (ABC) American Bird Conservancy; (CNPS 1B) presumed extinct in California; (CNPS 1B.1) seriously endangered in California; (CNPS 4) limited distribution or infrequent throughout a broader area in California; (BGEPA) USFWS Bald and Golden Eagle Protection Act; (WBWG-H) Western Bat Working Group-High Priority.

- a) *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The project will impact habitats that support special-status species as identified in the table above and may impact special-status species if present during construction. Project impacts and the measures to mitigate and avoid impacts are described below (Nomad Ecology 2014a).

IMPACT BIO-1: ALAMEDA WHIPSNAKE AND CALIFORNIA RED-LEGGED FROG CRITICAL HABITAT LOSS

The project area is located within designated critical habitat for Alameda whipsnake and California red-legged frog. A review of the California Natural Diversity Database (CNDDB) identified 24 Alameda whipsnake occurrences within 10 miles of the project area, primarily concentrated greater than five miles to the southwest along the Contra Costa County/Alameda County border. While this species was not observed during the field survey, the majority of the area surrounding the project sites consists of grazed non-native grassland and ruderal habitat and interspersed coast live oak woodlands providing suitable foraging and dispersal habitat.

A review of the CNDDB identified 20 California red-legged frog occurrences within 10 miles, primarily located to the west and southeast. The nearest reported occurrence is located approximately 1.25 miles to the west and comprises a single adult frog observed in an unnamed creek in 2001. All occurrences reported California red-legged frogs associated with creeks and stock ponds. The nearest breeding site, reporting 300+ adults observed in the Sindich Lagoons of Briones Regional Park in 1997, is located approximately 2.25 miles to the southeast. The ponds and the seasonal wetlands outside of the project area are perennial and lined with emergent vegetation, providing suitable breeding and non-breeding aquatic habitat. The seasonal wetland at Site 1 and tributary at Site 2 also provide suitable seasonal foraging and non-breeding aquatic habitat. Suitable dispersal and upland habitat is present in the ruderal, open grassland habitat, coast live oak woodland, and Central Coast riparian scrub in the project vicinity.

The project will result in permanent and temporary impacts to Alameda whipsnake and California red-legged frog designated critical habitat which may result in incidental take of either of these species. Permanent impacts include approximately 1.14 acres from the removal of grassland and ruderal habitat on the slopes along the north and south sides of the road at Site 1, and the north side of the road at Site 2 and culvert improvements within the tributary. Temporary impacts include approximately 0.73 acre from work areas to construct the project including equipment/material staging areas (Figure 2). The following mitigation and avoidance measures will be implemented to reduce impacts to a less than significant impact:

MITIGATION MEASURE BIO-1:

CCCPWD consulted with the USFWS regarding anticipated project impacts to Alameda whipsnake and California red-legged frog critical habitat and potential incidental take of these species. The USFWS issued a Biological Opinion which requires that CCCPWD mitigate impacts by purchasing Alameda whipsnake and California red-legged credits from a USFWS- and CDFW-approved conservation bank that protects and manages land established for Alameda whipsnake and California red-legged frog. The project is anticipated to remove 1.14 acres of habitat which will be mitigated at a 2:1 ratio for a total of 2.28 acres to be mitigated; temporary habitat loss is anticipated to be 0.73 acre which will be mitigated at a 1.1:1 ratio for a total of 0.80 acre to be mitigated. Habitat loss will be considered temporary when it is restored to baseline or better habitat function within 1 year of the

initial ground disturbance (USFWS 2015). In addition to the compensatory mitigation, the following avoidance measures will be implemented as required by the USFWS Biological Opinion (USFWS 2015):

AVOIDANCE MEASURE BIO-1:

1. Work activities will be completed between April 1 and November 1.
2. At least 15 days prior to the onset of construction activities, CCCPWD will submit the name(s) and credentials of biologists experienced in identifying Alameda whipsnakes and California red-legged frogs that would conduct activities specified in the following measures to the USFWS. No project activities will begin until CCCPWD has received written approval from the USFWS.
3. The USFWS-approved biologist(s) will conduct educational training for all construction personnel including subcontractors. This training will include, at a minimum: a description of the Alameda whipsnake and California red-legged frog and other special-status that have the potential occur in the area as identified in the above table; associated habitats of these species within the project area; an explanation of the species' status and protection under State and Federal law; the conservation measures to be implemented to reduce take of these species; communication and work stoppage procedures in case a listed species is observed; implications of non-compliance; and the purpose of the exclusion fencing and the importance of maintaining it. A fact sheet conveying this information will be prepared and distributed to all construction personnel. Upon completion of training, personnel will sign a form stating that they attended the training and understand all conservation measures and implications of non-compliance. If necessary, the training and fact sheet will be translated for non-English speaking personnel.
4. Prior to the start of any project-related ground-disturbing activities, the USFWS-approved biologist will conduct a preconstruction survey for special-status species.
5. Environmental sensitive area (ESA) and wildlife exclusion fencing will be installed within 2 weeks prior to start of construction. The delineation of the fencing will be shown on project plans and fencing installation will be overseen by the USFWS-approved biologist. The fence will be a minimum of 42 inches tall and the bottom 6 inches will be buried if feasible or otherwise adequately secured to prevent Alameda whipsnake and other special-status species from crawling under the fence. Stakes will face the work area. The fence will also include one-way funnel exits to allow the snake to leave the construction area. The CCCPWD will include specifications for fence installation and maintenance in provisions of the project's bid solicitation package. CCCPWD may consider orange wildlife exclusion fencing which would replace the need for ESA fencing. The fencing will remain in place throughout the duration of the project and will be inspected and maintained as needed each day before construction activities begin. Repairs to the fencing will be made within 24 hours of discovery.
6. Prior to installation of the ESA and wildlife exclusion fence, vegetation within the areas to be graded and three feet beyond the fence will be removed. All suitable habitat including refugia habitat such as dense vegetation, small woody debris, refuse, burrows, will be thoroughly inspected. Shrub and understory vegetation will be removed by hand to prevent mortality associated with mowers or other landscaping equipment; grassland vegetation will be removed by hand-held equipment such as weed whackers immediately after the USFWS-approved biologist has surveyed the area and determined it to be free of special-status species.
7. After vegetation removal and grading, a designated CCCPWD and/or contractor personnel will monitor on-site compliance with all avoidance and minimization measures. The USFWS-approved biologist will train the designated monitor(s) as described in Measure 3 above. The designated

monitor and USFWS-approved biologist will have the authority to halt construction activities through the on-site CCCPWD Resident Engineer if Alameda whipsnake and/or California red-legged frog are observed within or near the work area.

8. If an Alameda whipsnake is found anywhere in the fenced area, access route, or staging area, the USFWS-approved biologist will halt all construction through the on-site CCCPWD Resident Engineer and the USFWS will be immediately notified. Construction will not resume until either: (a) the snake has moved at least 50 feet away from all construction work on its own; or (b) based on further evaluation of the particular circumstance, the USFWS has issued a written determination that construction may resume. For this purpose, an email from one of the USFWS contacts identified at the end of the Biological Opinion will suffice.
9. If California red-legged frogs, eggs, or tadpoles are found during preconstruction surveys or during construction that cannot be avoided, the USFWS will be contacted immediately to determine action on a case-by-case basis. If, in consultation with the USFWS, it is determined that the frog is not in danger it will be left alone and not disturbed. If the animal is determined to be in danger it will be relocated. The following details this procedure:
 - a. Prior to initial ground disturbance, CCCPWD will submit to the USFWS a proposed relocation protocol, including appropriate relocation sites outside of the work area, written permission from the landowner for relocation to those sites, and description of methods of capture, handling, and transport, of any frogs which may be observed during the preconstruction survey that needs to be relocated. This protocol must be approved in writing by the USFWS also prior to ground disturbance. This protocol will be implemented in the event that a frog is encountered and needs to be moved away from the project site.
 - b. When a frog is encountered, all activities with potential to affect it will be immediately halted. The USFWS-approved biologist will assess the situation to select a course of action to avoid and minimize adverse effects to the animal. To the maximum extent possible, contact with the frog will be avoided, and the frog will be allowed to move away from the hazard to a secure location on its volition. When the USFWS-approved biologist has determined the frog is no longer threatened by the activity, work may resume. This does not apply where an animal is uncovered or exposed by work, and/or there is insufficient adjacent habitat for the animal to leave on its own.
 - c. If a frog is determined to be in danger from the resumption of project activities and cannot move to a secure location on its own, work will stop and the frog will be captured, relocated, and released by a USFWS-approved biologist outside the construction area at a USFWS-approved relocation site. When the frog has been removed from the area of danger, work will resume. If a frog is relocated, the USFWS will be notified within 24 hours.
 - d. Prior to handling and relocation, the USFWS-approved biologist will take precautions to prevent introduction of amphibian diseases in accordance with the USFWS revised guidelines (USFWS 2005). Disinfecting equipment and clothing is especially important when biologists are coming to the project area to handle amphibians after working in other aquatic habitats. Holding/transport containers and dip nets will be thoroughly cleaned, disinfected, and rinsed with freshwater prior to use.
 - e. Handling of red-legged frogs will be minimized. Relocation will be completed as soon as practicable on the same day of capture.
10. The number and size of access routes and staging areas, and the total area of the activity will be limited to the minimum necessary and will be clearly demarcated. Equipment and vehicles will be

restricted to the existing road, areas to be graded, and staging areas, and will not exceed 20 mph.

11. All construction-related activities and materials capable of entrapping wildlife such as trenches and pipes will be covered at the end of each work day to prevent entrapment. Prior to commencing daily construction activities, stored equipment, materials, and debris will be thoroughly inspected by the USFWS-approved biologist or designated monitor.
12. All trash will be collected daily at the end of each work day and placed into a securely-covered container which will be removed as necessary or upon project completion.
13. No pets from project personnel will be allowed anywhere in the project area, at any time during the day, during the entire construction period.
14. No firearms will be allowed on the project site except for those carried by authorized security personnel, and local, State or Federal law enforcement officials.
15. At a minimum, the following Best Management Practices (BMPs) will be implemented:
 - a. All equipment will be properly maintained and free of leaks. Servicing of vehicles and construction equipment including fueling, cleaning, and maintenance will occur at least 65 feet away from any riparian habitat or water body. If not feasible, servicing and maintenance areas will be adequately contained to prevent spills from entering the riparian habitat. Spill containment kits will be kept on site at all times during construction operations and/or staging or fueling of equipment.
 - b. Dust control measures will include use of water trucks to control dust in excavation-and-fill areas, rocking temporary access road entrances and exits, and covering of temporary soil stockpiles when weather conditions require.
 - c. Erosion and sediment control measures for graded areas will include a combination of silt fences, fiber rolls, etc. as appropriate along toes of slopes or along edges of staging areas. No materials that use plastic or synthetic mono-filament netting will be used to avoid wildlife from getting entangled.
 - d. Disturbed areas will be re-vegetated with an appropriate mixture of native seeds for the upland annual grassland upon project completion in the fall. Seeded areas will be blanketed with the appropriate erosion control material that will not entangle or trap wildlife (i.e., tightly-woven, non-mono-filament netting).
16. Upon project completion, the ESA and wildlife exclusion fencing will be removed and the area cleaned of debris and trash and returned to pre-project conditions or better.

POTENTIAL IMPACT BIO-2: SAN FRANCISCO DUSKY-FOOTED WOODRAT

Suitable riparian woodland habitat is present in the tributary east of Alhambra Valley Road at Site 2. San Francisco dusky-footed woodrats have been observed at Fernandez Ranch owned by the Muir Heritage Land Trust throughout the oak/bay woodland habitat four miles to the north and along the bank of Alhambra Valley Road east of the project site. The project will require work within the tributary for modifications to the culvert which may require removal of up to three riparian oak woodland trees. If woodrat nests are present in the tributary during these activities, the project could disturb inhabiting woodrats, resulting in nest abandonment, reduced fecundity and decreased survivorship. Although, removal of active and inactive nests will unlikely result in long-term effects. The following measure will be implemented to avoid impacts:

AVOIDANCE MEASURES BIO-2:

Prior to construction, a ground survey will be performed by a qualified biologist to locate and mark all woodrat stick nest houses in the proposed construction area. All marked woodrat houses will be avoided during construction activities, to the extent feasible. If marked woodrat nests cannot be avoided, CDFW will be contacted for guidance on options for dismantling nests and relocating woodrats. Any woodrat houses that cannot be completely avoided will be manually taken apart by a qualified biologist no more than 3 days prior to grading or land clearing, allowing any woodrats present to disperse to adjoining undisturbed habitat. If stick nests are disassembled more than 3 days prior to work, a preconstruction survey will be repeated to ensure that woodrats have not rebuilt nests in harm's way. If new nests are discovered, they will be disassembled.

POTENTIAL IMPACT BIO-3: WESTERN POND TURTLE

Western pond turtles have been observed in slow-moving rivers and streams (e.g. in oxbows), lakes, reservoirs, permanent and ephemeral wetlands, stock ponds, and sewage treatment plants. They prefer aquatic habitat with refugia such as undercut banks and submerged vegetation, and require emergent basking sites such as mud banks, rocks, logs, and root wads to thermoregulate their body temperature. Western pond turtles regularly utilize upland terrestrial habitats, most often during the summer and winter, especially for egg-laying, overwintering, seasonal terrestrial habitat use, and overland dispersal. Females have been reported ranging as far as 1,640 feet from a watercourse to find suitable nesting habitat. Nest sites are most often situated on south or west-facing slopes, are sparsely vegetated with short grasses or forbs, and are scraped in sands or hard-packed, dry, silt or clay soils.

Three reported occurrences of this species are located within a five-mile radius of the project area, all associated with ponds and creeks; the nearest occurrence is located 1 mile to the south, comprised of seven adults observed in a large two-acre pond off of Pinole Creek in 2007. The ponds in the project vicinity hold water throughout the year and are bordered with abundant emergent vegetation. Although the ponds are small, they contain areas of open water habitat and shoreline areas for basking. While no turtles were observed during the field survey, suitable habitat occurs nearby. Project activities will not directly affect the ponds; however, impacts may include contamination of the tributary and adjacent grassland habitat in the event that BMPs fail to contain pollutant runoff and erosion which could result in reduced fecundity and decreased survivorship. In addition, while not anticipated, project activities could directly impact turtles and/or nest sites if present in the project area. The following measure will be implemented to avoid impacts:

AVOIDANCE MEASURE BIO-3:

A qualified biologist will conduct a preconstruction survey for western pond turtles immediately prior to construction activities adjacent to aquatic habitats. If western pond turtles are detected within the work area, no work will occur within the occupied aquatic habitat until the on-site biologist determines in consultation with CDFW if capturing and translocating the individual(s) is necessary. If authorized by CDFW only a biologist in possession of a valid Scientific Collecting Permit will handle or translocate the turtle(s).

POTENTIAL IMPACT BIO-4: PALLID BAT

Pallid bats typically roost in small groups in a variety of roosts including bridges, buildings, tree hollows in coast redwoods, bole cavities in oaks, exfoliating bark, rock crevices in outcrops and cliffs, caves and mines as both day and night roosts. Roost sites may change seasonally and are typically reused for a few days to weeks (Nomad Ecology 2014a). Pallid bats mate in the late fall and winter and hibernate; females do not become pregnant until the spring when maternal colonies form (March-May); young are born from April to July. While young are weaned at 6-8 weeks, they are not self-sufficient until the fall when

colonies disperse (CDFW 2015c). One (1) occurrence has been reported from within a five-mile radius, located 3.5 miles southwest and comprised of two adults observed from a non-specific point source near the west end of Briones Reservoir in 1965.

While this species was not observed during the field survey, suitable foraging habitat is present in the project vicinity, and potential roosting habitat is present in old trees of coast-live oak woodland stands in the project vicinity. Project activities could result in direct impacts if roost or hibernation sites are present in the riparian oak trees within the tributary at Site 2 that may be removed, and indirect impacts if present nearby, which could result in short-term impacts such roost/hibernation site abandonment, reduced fecundity and decreased survivorship. The following measures will be implemented to avoid impacts:

AVOIDANCE MEASURE BIO-4:

1. Project construction is planned to occur between April and October which would be during the maternal roosting and weaning period. If feasible, trees planned for removal will be removed during the non-nesting season for birds and raptors (September-January). Therefore, prior to tree removal and/or construction, preconstruction surveys for pallid bats will be conducted to determine if bats are using any potential habitat features as roost or hibernation sites.
2. If any roost or hibernation sites are present in habitat features planned for removal, a bat specialist will be consulted to identify the bat species and size and type of colony (i.e., maternal) and develop appropriate avoidance and minimization measures. The CDFW will then be consulted for approval. If construction activities will not directly impact habitat features, but may cause indirect impacts due to nearby roost sites, a non-disturbance buffer zone will be determined and if necessary, a bat specialist will monitor construction activities to ensure that activities are not causing disturbance.
3. If it is determined that construction activities are resulting in disturbance to roost sites, work will cease immediately and the non-disturbance buffer zone will be increased by an adequate distance in consultation with a bat specialist and CDFW so that construction activities do not result in roost disturbance.

POTENTIAL IMPACT BIO-5: BRIDGE'S COAST RANGE SHOULDERBAND SNAIL

Bridge's coast range shoulderband snail typically inhabits rock piles, thistles and weedy grasslands on open hillsides, and have also been found under woody debris in streamside oak woodland habitat. Suitable open grassland hillside and streamside oak woodland habitats are present within project area and surrounding area. While this species was not observed during the field survey, if present during construction, project activities may result in direct mortality to this species. Temporary effects may include loss of suitable habitat by removal of roadside banks and non-native grasslands (Nomad Ecology 2014a). The following measures will be implemented to avoid impacts:

AVOIDANCE MEASURE BIO-5:

1. Removal or alteration of habitat that supports this species will be minimized, particularly in the weedy grassland and riparian woodland habitat east of Alhambra Valley Road.
2. Prior to the start of surface-disturbing activities, a qualified biologist will conduct a survey to locate individual snails. If any snails are found in the project footprint, they will be collected and relocated to suitable areas outside the project footprint and if possible placed on similar vegetation from which they were collected.

POTENTIAL IMPACT BIO-6: NESTING BIRDS AND RAPTORS

The following special-status bird and raptor species have the potential to occur in the project vicinity due to the presence of suitable nesting and foraging habitat: Allen's hummingbird, Cooper's hawk, ferruginous hawk, golden eagle, grasshopper sparrow, Nuttall's woodpecker, oak titmouse, white-tailed kite. The project may directly or indirectly impact these species and other raptors and birds protected by the federal Migratory Bird Treaty Act and California Fish and Game Code if present in the project vicinity.

AVOIDANCE MEASURE BIO-6:

1. Impacts to raptors such as Cooper's hawk, ferruginous hawk, golden eagle, and white-tailed kite can be avoided by conducting preconstruction raptor surveys within 250 feet of the project footprint during the breeding season, February 1st to August 31st with the exception of golden eagle which will be surveyed within a ½ mile of the project footprint. If active nests are identified within the survey radii, non-disturbance buffers will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover and species' tolerance to disturbance. Buffer size will be determined in cooperation with the USFWS Migratory Bird Regional Permit Office and CDFW. A biologist will also monitor the nest(s) to determine if construction activities are causing nest disturbance.
2. Impacts to passerine birds such as Allen's hummingbirds, grasshopper sparrow, Nuttall's woodpecker, and oak titmouse can be avoided or minimized by conducting preconstruction nesting bird surveys within 50 feet of the project footprint during the breeding season from February 1st to August 31st. If active nests are identified within 50 feet of the project footprint, non-disturbance buffers will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover and species' tolerance to disturbance. Buffer size will be determined in cooperation with the CDFW and the USFWS Migratory Bird Regional Permit Office. A biologist will also monitor the nest(s) to determine if construction activities are causing nest disturbance.
3. If it is determined that construction activities are resulting in nest disturbance, work will cease immediately and the non-disturbance buffer zone may be increased by an adequate distance in consultation with CDFW so that construction activities do not result in nest disturbance. A qualified biologist will continue to monitor the nest(s) to ensure nest disturbance is avoided and document and monitor nest phenology and nesting success.

A Mitigation and Monitoring Reporting Plan (MMRP) will identify when these measures will be implemented, the parties that are responsible for ensuring implementation of these measures, and verification that the measures were implemented (Appendix A).

The project is not anticipated to substantially impact any special-status species with implementation of the mitigation and avoidance and minimization measures described above. Therefore, project impacts will be **less than significant with mitigation incorporated**.

- b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Riparian woodland habitat occurs within an unnamed tributary of Arroyo del Hambre Creek at Site 2 east and south of the road (Figure 2). This is the upper extent of the natural riparian corridor at the headwaters of Arroyo del Hambre which is dominated by coast live oak trees. Based on review of aerial photos it appears that a pond or seasonal wetland feeds the tributary west of the road via an earthen ditch which is then concrete-lined near the road and flows beneath the road via a culvert to a

natural tributary east of the road that consists of riparian woodland habitat. The culvert will be improved at the inlet and outlet with a headwall and rock slope protection to accommodate the road shoulder widening.

IMPACT BIO-7: RIPARIAN WOODLAND HABITAT

The project footprint has been minimized to the maximum extent practicable in order to minimize impacts to this natural community. The project will permanently impact approximately 0.01 acre of the tributary from culvert improvements on both sides of Alhambra Valley Road to accommodate the road shoulder widening and may require removal of 3 riparian oak trees just east of the culvert outlet to accommodate placement of the rock slope protection. Temporary impacts will be approximately 0.001 acre for work in the tributary to construct the culvert improvements.

MITIGATION MEASURE BIO-2:

1. Discharges to the tributary will require authorization from the U. S. Army Corps of Engineers-San Francisco District (USACE), San Francisco Regional Water Quality Control Board (RWQCB), and CDFW. A permit application will be submitted to these agencies requesting authorization to discharge to the tributary prior to construction.
2. The USACE, RWQCB, and CDFW will likely require mitigation to offset permanent and temporary impacts. CCCPWD will mitigate the impacts by purchase of credits from a mitigation bank. If a mitigation bank is not available, the CCCPWD will consult with the agencies to determine the appropriate mitigation. If feasible, on-site mitigation will be pursued and will likely include:
 - a. Planting oak trees or other native species determined in consultation with CDFW within the riparian habitat adjacent to the project area. The number of trees to be replanted will be determined during consultation with CDFW; and
 - b. Vegetating sections of the banks that will contain rock slope protection with native vegetation suitable for riparian banks. The agencies will be consulted to determine the appropriate re-vegetation plan.
3. Temporarily impacted areas will be hydroseeded with an appropriate native seed mix; the seed mixture will not contain invasive non-native species, only sterile non-native species.

POTENTIAL IMPACT BIO-7A: UNAUTHORIZED DISCHARGES

In addition, the project will have potential direct and indirect impacts to the tributary and riparian habitat as a result of: (1) discharges of silt, sediment and other runoff from the construction area; (2) unauthorized entry by persons, vehicles or equipment; or (3) unauthorized depositions of fill or other construction materials. In order to avoid and minimize potential direct and indirect impacts, the following measures will be implemented:

AVOIDANCE MEASURE BIO-7A:

1. The construction contractor will be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) program Construction General Permit (CGP) (Order No. 2012-0006-DWQ) if the impacts result in more than 5 acres of ground disturbance, or a Water Pollution Control Plan (WPCP) if the impacts are less than 5 acres or if the project receives an erosivity waiver from the SWRCB for ground disturbances between one and five acres. The SWPPP and WPCP will identify applicable best management practices (BMPs) that will avoid and minimize impacts to the tributary and riparian habitat

such as, but not limited to:

- a) Prior to the start of construction, construction personnel will be trained by a qualified biologist on all required avoidance and minimization measures as well as permit requirements.
- b) Prior to construction, the contractor will install a wildlife exclusion/ESA fence to prevent species from entering the construction areas, which will also act as a sediment barrier fence along the tributary. Additional applicable BMPs will also be installed. A qualified biologist will stake and oversee installation of the fence and additional BMPs.
- c) A temporary water diversion system will need to be installed which will be monitored by the qualified biologist or a CCCPWD-designated monitor and maintained throughout construction as needed; and
- c) No construction or maintenance vehicles will be refueled within 65 feet of the riparian habitat unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill.

The special-status species described above in item (a) could be present within and/or near the riparian habitat that could be disturbed by construction activities. Avoidance Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6 will avoid impacts to these special-status species, if present.

The MMRP located in Appendix A identifies when these measures will be implemented and the parties that are responsible for ensuring implementation of these measures.

The project is not anticipated to substantially impact the riparian habitat with the implementation of the mitigation and avoidance and minimization measures described above. Therefore, project impacts will be **less than significant with mitigation incorporated**.

- c) *Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

One seasonal wetland is present at Site 1 in the southwestern corner of the intersection of Alhambra Valley Road and Rancho La Boca Road within a level non-native grassland area where water ponds. This wetland feature is expected to be under the USACE and RWQCB jurisdiction.

IMPACT BIO-8: SEASONAL WETLAND

The project footprint has been minimized to the maximum extent practicable in order to minimize impacts to the seasonal wetland. Approximately 0.02 acre of the seasonal wetland will be permanently impacted from fill material that will be placed along the slope and toe of the slope to support the road shoulder widening and approximately 0.01 acre will be temporarily impacted from disturbance of installing sediment and erosion control features (i.e., wildlife exclusion/ESA/silt fence, etc.) along the edge of the work area.

MITIGATION MEASURE BIO-3:

1. Discharges to protected wetlands require authorization from the USACE and RWQCB. A permit application will be submitted to both agencies requesting authorization to discharge to the seasonal wetland prior to construction.
2. The USACE and the RWQCB will likely require mitigation to offset permanent and temporary

impacts. CCCPWD will mitigate the impacts by purchase of credits from a wetland mitigation bank. If a mitigation bank is not available, the CCCPWD will consult with the USACE and RWQCB to determine the appropriate mitigation. If feasible, on-site mitigation will be pursued.

3. Temporarily impacted areas will also be hydroseeded with the appropriate native wetland seed mix where applicable.

POTENTIAL IMPACT BIO-8A: UNAUTHORIZED DISCHARGES

In addition, the project will have potential direct and indirect impacts to the seasonal wetland similar to those as described for potential impacts to the tributary and riparian woodland habitat at Site 2 above in Potential Impact BIO-7A. Therefore, measures to avoid and minimize potential direct and indirect impacts described in Avoidance Measure BIO-7A above will be implemented.

AVOIDANCE MEASURE BIO-8A:

1. Implement Avoidance Measures BIO-7A with the exception of (b) which will not require installation of a water diversion system.

Some of the special-status species described above in item (a) could be present within and/or near the seasonal wetland that could be impacted by construction activities. Avoidance Measures BIO-1 and BIO-5 will avoid impacts to these special-status species, if present.

The MMRP located in Appendix A identifies when these measures will be implemented and the parties that are responsible for ensuring implementation of these measures.

The project is not anticipated to substantially impact the seasonal wetland with the implementation of the mitigation and avoidance measures described above. Therefore, project impacts will be **less than significant with mitigation incorporated**.

- d) *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

The project is located within a mix of open grasslands, oak woodlands, riparian corridors and rural residences. The surrounding area provides connection through this habitat matrix and functions as potential movement and dispersal corridor for a variety of species. The tributary provides the only clear movement corridor as it supports a moderate to well-developed riparian corridor. Alhambra Valley Road does not pose a barrier to movement but is a source of mortality for numerous mammal, bird, amphibian, and reptile species. The project will not result in permanent disruption to movement of wildlife species. However, activities associated with construction of the project may temporarily inhibit dispersal, migration, and daily movement of common wildlife. This disruption is limited and short term in nature (Nomad Ecology 2014a). Therefore, project impacts will be **less than significant**.

- e) *Would the project conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?*

The project will not conflict with local County policies protecting biological resources as proposed impacts will be offset by compensatory mitigation to a local or regional mitigation bank that focuses on creation, restoration and enhancement of the habitats that will be impacted by the project and the special-status species associated with these habitats. If a mitigation bank is not available, CCCPWD

will consult with the permit agencies to determine the appropriate mitigation. If feasible, on-site mitigation will be pursued. The proposed mitigation and avoidance and minimization measures as described above are consistent with the policies for protection of biological resources included in the Conservation Element section of the County General Plan (County 2005d). Therefore, the project will have **no impact**.

- f) *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?*

The project area is not located within an adopted Habitat Conservation Plan or other approved local, regional, or state habitat conservation plan. Therefore, the project will have **no impact**.

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Background

CEQA requires lead agencies to determine if a project will have an adverse impact on a significant cultural resource (includes historical and archaeological) (Public Resources Code Sections 21084, 21084.1, 21083.2). A resource is considered significant if it 1) is listed in or has been determined eligible for listing in the California Register of Historic Resources (CRHR); 2) is included in a local register of historical resources, as defined in Public Resources Code 5020.1(k); 3) has been identified as significant in an historical resources survey, as defined in Public Resources Code 5024.1(g); or 4) is determined to be historically significant by the CEQA lead agency [CCR Title 14, Section 15064.5(a)]. The following CRHR eligibility criteria need to be considered when making a significance determination.

1. Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

If a significant resource will be impacted, the Lead Agency must determine whether there is "substantial evidence" in the administrative record to support a finding of significant effect (Section 21080(e)). CEQA requires examination of mitigation measures or feasible project alternatives that would avoid or minimize any impacts or potential impacts.

Cultural and Historical Resource Assessment

In order to determine if the project area contains potential significant cultural and/or historical resources, a qualified cultural resource specialist conducted research of recorded sites and surveys and historic maps and literature at the Northwest Information Center (NWIC) at California State University, Sonoma as well as at various libraries and local historical societies for historic context and backgrounds,

contacted the Native American Heritage Commission (NAHC) and Contra Costa County record offices, and conducted a field survey of the project area. Considering that this project will receive federal aid from Caltrans, the federal lead agency on behalf of the Federal Highway Administration, historical and archaeological assessment reports were prepared in accordance with Caltrans guidance for compliance with NEPA (*Historic Property Survey Report, Historic Resource Evaluation Report, Archaeological Survey Report*) (Condor Country Consulting, Inc. 2014a,b, JRP Historical Consulting 2014).

Environmental Setting

The project area lies in a mostly rural section of Alhambra Valley, a flat-bottomed alluvial valley. It appears on the Briones Valley 7.5' USGS topographic quadrangle map in La Boca de la Cañada (south of Section 34 of Townships 1 North and 2 North and Range 3 West of the Mount Diablo Meridian) (Figure 1). The natural landscape consists of rolling hills, mixed oak woodland, coastal sage scrub, drought-adapted chaparral, and non-native annual grassland, and tributaries that originate in Briones Regional Park which eventually drains into the Carquinez Strait by way of Arroyo del Hambre in the area to Alhambra Creek in Martinez. The land use in this area consists of large-parcel residences and associated agricultural and grazing lands (Condor Country Consulting, Inc. 2014b).

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

The road segments at Sites 1 and 2 and two residential properties at Site 2 (5830 and 5835 Alhambra Valley Road) were identified as having resources of sufficient age to require recordation and evaluation to satisfy the requirements of the National Historic Preservation Act and CEQA. These resources are not listed on the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR) and have not been previously evaluated to determine eligibility for listing (JRP Historical Consulting 2014).

Impacts to the road segments include replacement of the asphalt and increasing the width which will result in requiring sliver right-of-way takes from the adjacent residential properties at Site 2. The general alignment of Alhambra Valley Road dates to the Rancho period (Martinez-Pinole Road), but has been substantially altered over time through widening, modification of curves, and paving to accommodate modern vehicular traffic. The residential structures were constructed between 1939 and 1956. These historic-era parcels reflect some of the historical themes but were determined to be modest examples of their types and do not exhibit significant qualities in terms of their architecture. In addition, these resources have suffered from a loss of integrity primarily due to replacement of the original windows. The evaluations determined that the road segments and the structures are not eligible for listing on the NRHP or the CRHR which was confirmed by the California Office of Historic Preservation (2014) (JRP Historical Consulting 2014). No evidence of other historical materials was encountered during the field survey (Condor Country Consulting, Inc. 2014b, JRP Historical Consulting 2014). Therefore, the project will have **no impact**.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The records search identified no recorded cultural resources within the project area or within a 1-mile radius. The NAHC and Native American tribal representatives identified no native lands, plant gathering areas, archaeological deposits, or traditional cultural properties within the project area. Field surveys conducted by archaeologists did not identify cultural resources or intact historic cultural resources.

The depth of excavations in the project area is anticipated to be a maximum horizontal depth of 11 feet and vertical depth of five feet at Site 1 where cuts of the existing cut slope are comprised entirely of

bedrock and devoid of Holocene-era soils that tend to contain cultural deposits. Additionally, cuts into the existing road (up to five feet in depth) was cut into bedrock in many areas, and over the years an approximate two to three-foot overlay of aggregate base has been added. Therefore, there is an extremely low potential for buried archaeological resources in these areas because the impacts will be either into disturbed aggregate or shallow bedrock. Archaeologists were able to examine the shoulders and subsurface of the edges of the existing roadbed during their survey; two-foot deep drainage ditches are present on both sides of the roadway throughout the project segments. The existing drainage ditches generally penetrate to bedrock at Site 1, and in portions at Site 2. No indicators of cultural deposits were noted in the roadside ditches (Condor Country Consulting, Inc. 2014b).

While no resources were recorded or identified within the project area, the types of soils that occur within the project area were further evaluated to determine the potential presence of unearthed resources. The United States Department of Agriculture, National Resource Conservation Service Web Soil Survey indicate that the soils within the project area primarily consists of Los Gatos Loam, 50-75 percent slopes and Los Osos Clay Loam, 30-50 percent slopes and the depth to bedrock on both is approximately 20-40 inches. The parent materials are sandstone, shale, and residuum weathered from sedimentary rock. In both, clay and loam overlay the bedrock material. The lithology of the rocks in the exposed areas is consistent with Briones Sandstone, and as in the areas of the lateral excavation of the existing cut slope road, it is very unlikely that there would be anything but shallow surface Holocene soils containing cultural deposits. Based on the steep slopes in the project area, which is an erosive, not depositional geologic context, it is unlikely that Holocene soils are thicker than one to two feet on the shoulders of the existing road. Therefore, it is presumed from the background research and field observations that any proposed excavations would have a very limited chance of disturbing Holocene era soils because excavations will occur primarily in bedrock (Condor Country Consulting, Inc. 2014b).

POTENTIAL IMPACT CUL-1: ARCHAEOLOGICAL RESOURCES

Regardless of these results, the project may unearth unanticipated historic or pre-historic Native American period resources. Therefore, the following measures will be implemented to avoid and minimize potential direct and indirect impacts.

AVOIDANCE MEASURE CUL-1:

1. Contractor will be notified of the possibility of encountering archaeological materials during ground-disturbing activities and will be educated on the types of historic and pre-historic Native American period archaeological materials that may be encountered.
2. If an inadvertent discovery is made, the Contractor will cease all ground-disturbing activities in the area of the discovery.
3. The Contractor will immediately notify the CCCPWD Resident Engineer who will then request a qualified archaeologist to evaluate the finding(s).
4. If the finding(s) is determined to be potentially significant, the archaeologist in consultation with the appropriate Native American tribal representative or historical society will develop a research design and treatment plan outlining management of the resource, analysis, and reporting of the find.

The project is not anticipated to substantially impact historical or pre-historic Native American period resources with the implementation of the avoidance measure described above. Therefore, project impacts will be **less than significant**.

- c) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?*

A survey and examination of the geologic units exposed within the project area at the locations of proposed ground-disturbing activities revealed marine invertebrate fossils visible within exposed rock at Site 1 where horizontal excavation of up to approximately 11 feet will occur along the existing cut slope on the north side of the road. This portion of the project area lies near the apex of a geologic anticline on which younger Briones Formation lie conformably atop older Miocene shales of the Monterey Formation. These units likely lie atop older marine sediments, though none are exposed within or near the project area. The lithology of the exposed rock is consistent with the Briones Formation, which are quite fossiliferous as well as the Monterey Formation but not as plentiful as in the overlying Briones Formation. This result was determined based on the recorded occurrence of fossil invertebrate and vertebrate localities from these geologic units in Contra Costa County. Therefore, the paleontological sensitivity for both of these geological unit formations is considered high. Site 2 primarily contains Holocene alluvial deposits and fill; this unit covers the ground surface in areas where bedrock is not exposed and are generally considered too recent to contain significant paleontological resources and therefore have low paleontological sensitivity (Condor Country Consulting, Inc. 2014c).

The marine invertebrate fossils discovered at Site 1 consists of clam beds which are not particularly significant as they have poor preservation; however they may indicate the presence of more significant specimens that may be less weathered and/or other species (Condor Country Consulting, Inc. 2014c).

POTENTIAL IMPACT CUL-2: PALEONTOLOGICALLY-SENSITIVE RESOURCES

Project-related ground-disturbing activities can impact paleontologically-sensitive geologic units when vehicles or other work equipment impact sediments beyond previous ground disturbance either by excavating, grading, or crushing bedrock exposed in or underlying a project. The following measures will avoid and minimize impacts if present within the project area (Condor Country Consulting, Inc. 2014c):

AVOIDANCE MEASURE CUL-2:

1. Paleontological resources monitoring by a qualified paleontologist will be conducted during ground-disturbing activities that impact areas that occur within the paleontologically-sensitive Briones and Monterey Formations. Monitoring is not recommended at Site 2 as this area is primarily overlain by Holocene alluvial deposits.
2. Upon discovery of possible fossil material, or the exposure of a paleontologically-sensitive geologic unit, the monitor will request the CCCPWD Resident Engineer to briefly redirect and/or halt project-related ground disturbance, as appropriate, while he/she recovers the material for expedient evaluation. The paleontological will be authorized to redirect or halt construction activities within 50 feet of a discovery, in accordance with the guidelines of the Society of Vertebrate Paleontology, to (1) evaluate the resource, and (2) make recommendations regarding their treatment. It is reasonably anticipated that the impact to construction excavation would be minimal; only brief interruptions to recover what are anticipated to be isolated fossils for later evaluation, and resume work. Monitoring will continue at the project area until the supervising qualified paleontologist determines that no native sediments are present or that significant paleontological resources are not likely to be discovered.
3. In the highly unlikely event that articulated fossils and/or a concentration of fossils is discovered (i.e., a bone bed), further investigation or protection of the discovery is warranted, and the monitor will request the CCCPWD Resident Engineer to direct work elsewhere while he/she

determines and clearly marks the boundaries of the discovery to avoid additional ground-disturbing activities at that location, until a recovery plan is in place.

4. No geologic units within the project area have a high potential to contain microvertebrate fossils, therefore the screen-washing process and microscopic analysis outlined below will only be necessary in the event of an unanticipated discovery.
5. On-site training will be conducted for all construction personnel who will work in areas to be excavated. The training will discuss the types of paleontological resources that could be encountered and the procedures to be followed if they are discovered.
6. In areas not regularly monitored by an on-site paleontologist (Site 2), there is little potential for discovery. However, should there be a discovery of significant paleontological resources, the CCCPWD Resident Engineer will implement the measures outlined above and immediately notify the CCCPWD Resident Engineer to obtain a qualified paleontologist to address the finding.
7. In the unlikely event that there is an unanticipated discovery of pre-Holocene soils containing microvertebrate fossils, additional monitoring may be required following assessment of significance by a qualified paleontologist. Microvertebrate fossils are generally not visible to the eye and are not easily identified by observing ground-disturbing activities during construction. If a geologic unit is found during construction that has a high potential for yielding microvertebrate fossils it may be possible to mechanically remove bulk sediment samples to process offsite for fossil extraction, which helps avoid construction delays. Samples of each sensitive geological unit should be collected and processed to determine the presence of microvertebrate fossils (Society of Vertebrate Paleontology 1995). An initial sample of 500 pounds should be screen-washed and sorted to determine if microvertebrate fossils are present. For each geological deposit in which microvertebrate fossils are discovered in the initial 500-pound sample, it may be appropriate to process up to an additional 5,500 pounds of matrix, though the total amount of matrix sampled per geological unit may differ as determined by the qualified paleontologist (Society of Vertebrate Paleontology 1995). The goal of this process is to achieve a specimen sample size that contains all representative fossil taxa that may be impacted by construction activities in each paleontologically sensitive geologic unit. Again, no geologic units within the project area have a high potential to contain microvertebrate fossils, therefore this process will only be necessary in the event of an unanticipated discovery.
8. *Data Recovery:* In the event that paleontological resources are discovered, fossil specimens must be properly collected and sufficiently documented to be of scientific value. Exposed fossils left in situ are subject to weathering that damages the fossil; therefore, documentation and recovery of the fossil is necessary soon after any such material is exposed. Non-fossil sediment samples will also be collected with each recorded locality for lithologic and/or palynologic analysis.
9. *Reporting:* In the event that paleontological resources are discovered, a data recovery report shall be prepared that documents the methods and results of monitoring, and provides an analysis of the nature and significance of fossils recovered. CCCPWD, any supervising agencies and the repository to which the fossil material is accessioned will receive copies of the final report.
10. *Curation of Recovered Fossils:* After the data recovery report is prepared, if fossil materials recovered during project monitoring activities are determined to be of significance, they will be accessioned for curation to a recognized paleontological repository, such as the University of California, Museum of Paleontology, along with the data recovery report.

Implementation of the above avoidance measures will reduce potential impacts to a **less-than-significant** level.

d) *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

The project will not impact any formal or informal cemeteries because none are present within or adjacent to the project area. In order to determine if there are any unrecorded burial grounds and/or sacred land sites in the vicinity of the project area, a list of Native American tribal representatives for the region was obtained from the NAHC. The listed Native American representatives were notified of the project via certified mail and follow up emails or phone calls. None of the representatives who provided responses expressed any concerns relating to this project (Condor Country Consulting, Inc. 2014a).

POTENTIAL IMPACT CUL-3: NATIVE AMERICAN REMAINS

Regardless of these results, the project may unearth unanticipated pre-historic period Native American remains. Therefore, the measures to avoid and minimize potential direct and indirect impacts described below will be implemented.

AVOIDANCE MEASURE CUL-3:

Project contract specifications will stipulate that the contractor shall stop work in the area of any discovery and immediately notify CCCPWD Resident Engineer who will then contact the County Coroner, NAHC, and a qualified archeologist to determine how to appropriately deal with the remains in accordance with the California Health and Safety Code (Health and Safety Code Section 7050.5[b]).

The project is not anticipated to substantially impact historical resources with the implementation of the avoidance measure described above. Therefore, project impacts will be **less than significant**.

VI. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1 Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Geology

The project area is located in the hills between Pinole and Martinez which are comprised primarily of Miocene-age marine sediments of the Monterey Formation and Briones Formation, the latter overlying and therefore younger than the former, and the more recent Holocene-age sediment of the Quaternary Formation. Site 1 is shown to primarily occur on Monterey Formation adjacent to the Briones Formation. The Monterey Formation shale underlies the Briones Formation locally. Lithologically, the bedrock composing the Monterey formation are much finer-grained than those of the sandstones that make up the Briones Formation. Most Monterey Formation rocks are clay or siltstone shales. Site 2 is shown to primarily occur within the Quaternary Formation. The Franklin Fault runs northwest – southeast less than a mile north of the project area, at which point much older Cretaceous Panoche Formation sediments are exposed (Condor Country Consulting, Inc. 2014c, CE&G 2014).

Soil

The soil types in the project vicinity consists of Los Osos clay loam, Gaviota sandy loam, Tierra loam, Los Gatos loam, Garretson loam, and Millsholm loam. Loam, sandy loam and clay loam soils dominate the project area. The following soil types will primarily be disturbed by the project: Garretson loam (2 to 5 percent

slopes), Millsholm loam (30 to 50 percent slopes) and Los Osos clay loam (30 to 50 percent slopes) at Site 1 and Gaviota Sandy Loam (15 to 30 percent slopes), Tierra Loam (9 to 15 percent slopes), Los Osos clay loam (30 to 50 percent slopes), and Los Gatos loam (50 to 75 percent slopes) at Site 2 (Nomad Ecology 2014, CE&G 2014, USDA 1977, USDA NRCS 2015).

At Site 1, Garretson loam and Millsholm loam is present below the road and both north and south of the road in the western portion of the site, and Los Osos clay loam is present below the road and both east and west of the road at the eastern edge of the site. Garretson loam is gently sloping soil on alluvial fans; runoff is slow and the hazard of erosion is slight where the soil is tilled and exposed. Millsholm loam, a steep soil on uplands; runoff is rapid, and the hazard of erosion is high where the soil is bare; it consists of low plasticity silt; the shrink-swell potential is low. Los Osos clay loam steep soil is on uplands; runoff is medium to rapid, and the hazard of erosion is moderate to high where the soil is bare (USDA 1977).

At Site 2, Gaviota sandy loam is present north of the road, Tierra loam is present below the road and east and west of the road, Los Osos clay loam is present south of the road, and Los Gatos loam is present below the road and east and south of the road. Gaviota loam, a hilly soil is on uplands; this soil is well-drained; run-off is medium to rapid, and the hazard of erosion is moderate to high where soil is bare. Tierra loam, a strongly sloping upland terrace soil; runoff is medium to rapid, and the hazard of erosion is moderate to high where the soil is bare. Los Gatos loam, a very steep upland soil; runoff is rapid, and the hazard of erosion is high where the soil is bare (USDA 1977). Los Osos clay loam is described above.

a) *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving?*

1 *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

Contra Costa County is located within a region of high seismicity; the San Francisco Bay Region has been impacted by severe earthquakes during historic time (Contra Costa County 2005e). In order to provide safety of structures for human occupancy, the Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazards. The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps (Association of Bay Area Governments [ABAG] 2015, CDC 2015c).

The project area is not located within an Earthquake Fault Zone for active faults as designated by the State Geologist (ABAG 201). The nearest active fault is the Hayward fault with the northern end of the fault being mapped approximately 7 miles southwest of the project area. The Concord-Green Valley fault system is mapped about 7.5 miles northwest; some of the other active fault systems which could induce strong ground shaking at the site include the Calaveras, San Andreas, and Concord-Green Valley fault systems (CE&G 2014).

The project area is not expected to expose people or structures to potential substantial adverse effects as the project does not include features that would increase risk to people or structures as it is primarily limited to shoulder widening of an existing roadway. Although in order to accommodate the road shoulder widening, the existing cut slope north of the road at Site 1 will need to be cut further back and the slope along the south side of the road will need to be built up. A geotechnical investigation evaluated the existing cut slope and determined that the potential for surface rupture due to primary faulting in the project area is considered to be low and no specific design or construction measures are required to address fault rupture potential. However, a stability analysis has determined that the new

cuts can be made in the sandstone bedrock at inclinations of 1.25 horizontal to 1 vertical slope (1.25H:1V) or flatter. The project design and construction will incorporate the recommended measures and applicable state (Caltrans Highway Design Manual, Caltrans 2015b) and local design practices and guidelines to ensure the project will withstand seismic activity. Therefore, project impacts will be **less than significant**.

2 *Strong seismic ground shaking?*

The project area is located within in an area of low damage susceptibility; sound structures on bedrock typically perform satisfactory if foundation materials and critical slopes are stable (Contra Costa County 2005e). As discussed above, while the project area is not located in a fault zone, given the proximity of the project area to the numerous active fault systems, it is likely that the project area will be subjected to the effects of a major earthquake. The project design and construction will incorporate measures that are in accordance with the geotechnical investigation recommendations and applicable state and local design practices and guidelines to ensure that the project will withstand seismic activity. Therefore, project impacts will be **less than significant**.

3 *Seismic-related ground failure, including liquefaction?*

The project area is located within a low liquefaction potential (Contra Costa County 2005e). Regardless, the project design and construction will incorporate measures that are in accordance with the geotechnical investigation recommendations and applicable state and local design practice and guidelines to ensure that the project will withstand seismic-related failures. Therefore, project impacts will be **less than significant**.

4 *Landslides?*

The project vicinity contains landslide deposits (Contra Costa County 2005e). The existing cut slope that will be cut further back at Site 1 is inclined at a 1.5 horizontal slope to 1 vertical slope (1.5H:1V). Observations of the ascending slopes north of the road suggest that there is no readily observable evidence of recent landslide activity that has taken place at Site 1 (CE&G 2014). As noted above, a stability analysis has determined that the new cuts can be made in the sandstone bedrock at inclinations of 1.25 horizontal to 1 vertical slope (1.25H:1V) or flatter (CE&G 2014). The project design and construction will incorporate the recommended measures from the geotechnical investigation and other applicable state and local design practices and guidelines to ensure that the project will withstand landslides. Therefore, project impacts will be **less than significant**.

b) *Would the project result in substantial soil erosion or the loss of topsoil?*

Grading and excavation will result in some changes in topography associated with the road elevation and cut slope along the north side of the road at Site 1 which will include temporary loss of topsoil and the potential for soil erosion from wind. Project contract specifications will require a water pollution control plan which will include standard dust control and erosion control practices to be implemented during construction, including, but not limited to, general watering of exposed areas and sweeper trucks. Permanent rock slope protection that will be placed at the culvert openings at Site 2 will minimize exposure of bare soils to the tributary. Upon project completion, all areas left exposed will be re-seeded and re-vegetated with species appropriate to the area in order to stabilize exposed soil. Therefore, project impacts will be **less than significant**.

c) *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

As discussed above, the project area is located within an area subject to landslides but within a low

potential for liquefaction (Contra Costa County 2005e). The cut slope at Site 1 has been evaluated and recommendations have been provided to ensure stability of the new cut slope. The project design and construction will incorporate the recommended measures in accordance with the geotechnical investigation and applicable state and local design practice and guidelines. Therefore, project impacts will be **less than significant**.

- d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Expansive soils swell when they absorb water and shrink as they dry. The basic cause of expansion is the attraction and absorption of water in the expandable crystal structures of clays. These areas must be recognized because they can cause cracking to foundations during wet or dry periods (Contra Costa County 2005e).

As discussed above, the project area consists of a mixture of consolidated and unconsolidated sediments (Quaternary Alluvium) which includes expansive clays, and Miocene-age sandstone, claystone and siltstone. The project design and construction will incorporate the recommended measures in accordance with the geotechnical investigation and applicable state and local design practice and guidelines. Therefore, project impacts will be **less than significant**.

- e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?*

The constructed project and project construction will not require septic or other waste disposal systems. Therefore, the project will have **no impact**.

VII. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Background

Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of greenhouse gases (GHGs) that keep the earth's surface warm by trapping heat in the atmosphere. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land (California Office of Planning and Research [OPR] 2008b).

Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, recognized that California is the source of substantial amounts of GHG emissions which poses a serious threat to the economic well-being, public health, natural resources, and the environment of California (OPR 2008b). Potential adverse impacts of global warming include severe air quality problems, a reduction in the quality and supply of water from the Sierra snowpack, a rise in sea levels causing the displacement of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems (OPR 2008b). This bill directed the California Air Resources Board (CARB) to begin developing discrete early actions to reduce GHGs to reach the GHG reduction goals by 2020.

As discussed in the air quality section, in order to address global climate change associated with air quality impacts, CEQA statutes were amended to require evaluation of GHG emissions (global pollutants) which includes criteria air pollutants (regional pollutants) and toxic air contaminants (local pollutants). As a result, the BAAQMD adopted CEQA thresholds of significance for criteria air pollutants and GHGs, and issued updated CEQA guidelines to assist lead agencies in evaluating air quality impacts to determine if a project's individual emissions would be cumulatively considerable. Various modeling tools are used to estimate emissions based on the type of project (i.e., land use developments, linear transportation and utility projects) (BAAQMD 2010a). While the BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions, sources of construction-related GHGs include exhaust (carbon dioxide, nitrous oxide) for which the same detailed guidance as described for criteria air pollutants and precursors should be followed (BAAQMD 2010b).

- a) *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

The constructed project would not result in an increase of GHG emissions as no additional travel lanes will be created; however, construction activities will generate GHGs from construction equipment and

vehicle exhaust. While the BAAQMD does not have an adopted threshold of significance for construction related-GHG emissions Lead Agencies should quantify and disclose GHG emissions that would occur during construction, and make a determination on the significance of these construction-generated impacts. As discussed in the Air Quality section, estimated project construction emissions were determined to be below the thresholds of significance. Further, project contract specifications will require air pollution control practices. Therefore, project impacts will be **less than significant**.

- b) *Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

The project will not conflict with an applicable plan, policy or regulation as project emissions were estimated and determined to be below the thresholds of significance in accordance with BAAQMD air quality plans. Further, project contract specifications will require implementation of air pollution control practices. Therefore, project impacts will be **less than significant**.

VIII. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Background

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies. The California Environmental Protection Agency (Cal/EPA) which consists of the Air Resources Board, Department of Pesticides Regulation, Department of Resources and Recycling and Recovery, Department of Toxic Substance Control (DTSC), Office of Environmental Health Hazard Assessment, and State Water Resources Control Board (SWRCB) regulates hazardous materials and waste. Under Government Code Section 65962.5, the DTSC maintains a list of hazardous substance sites (Cortese List) which includes leaking underground storage tank sites, hazardous material sites, and landfills with evidence of groundwater contamination (Cal/EPA 2015). The Contra Costa County Health Services, Hazardous Materials Program

(2015) serves area residents by responding to emergencies and monitoring hazardous materials.

- a) *Would the project create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?*

The project will not create a significant hazard to the public or the environment because once constructed, the project would not result in routine transport, use or disposal of hazardous materials other than what already occurs by the traveling public. There is the potential for a release of hazardous substances from equipment operations (e.g., accidental petroleum spills) during construction. Project contract specifications will require that the contractor prepare a Water Pollution Control Plan to identify safety and BMPs (e.g., placement of drip pans under stationary equipment, routine equipment inspections, and on-site spill cleanup materials) to prevent accidental releases of hazardous substances and potential worker exposure. In addition, project contract specifications will require the contractor to contact Underground Service Alert (USA) prior to conducting any work that could potentially impact utilities. Therefore, project impacts will be **less than significant**.

- b) *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

As discussed above, there is the potential for a release of hazardous substances from construction equipment operations (e.g., accidental petroleum spills) during construction. The required preventative measures noted above will minimize potential impacts to the environment and worker exposure. Therefore, project impacts will be **less than significant**.

- c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?*

There are no existing or proposed schools within 1/4 mile of the project area. The constructed project will not emit hazardous emissions or handle hazardous or acutely hazardous materials or substances. While construction equipment exhaust will generate an increase in air pollutant concentrations, it would be temporary and effects would be negligible as estimated emissions were determined to be less than the BAAQMD thresholds of significance as discussed in the Air Quality section. Further, project contract specification requirements for air and water pollution control practices will be implemented. Therefore, the project will have **no impact**.

- d) *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

The project area and surrounding properties were not identified on any lists compiled pursuant to Government Code 65962.5 (Cortese List) or any lists maintained by the CalEPA, California DTSC, or CCHS, Hazardous Materials Program databases (SWRCB 2015, DTSC 2015). Further, field observations did not reveal evidence of contamination. Therefore, the project will have **no impact**.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.*

The project area is not located within 2 miles of a public airport. Therefore, the project will have **no impact**.

- f) *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

The project is not located in the vicinity of a private airstrip. Therefore, the project will have **no impact**.

- g) *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The constructed project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Access for emergency vehicles will be provided at all times during construction. Therefore, project impacts will be **less than significant**.

- h) *Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

The project area is located within a high fire hazard zone (CalFire 2007) but not within a very high hazard severity zone (CalFire 2009). The project does not consist of development of structures that would expose people or structures to a significant loss, injury, or death from wildland fires as the purpose of the project is to provide safety improvements of an existing roadway. However, project construction may spark unintentional fires. Avoidance Measure BIO-1 requires that vegetation within the construction area be removed within the construction area with hand-held equipment prior to start of construction for the purposes of avoiding impacts to special-status species. Therefore, the project contract specifications will require that the contractor remove vegetation within the construction area prior to start of construction which will minimize potential fire starts. Further, standard practice and OSHA regulations require that fire suppressive equipment at construction sites (OSHA 2015). Therefore, project impacts will be **less than significant**.

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IX. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface run-off in a manner which would result in flooding on-or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Hydrological Resources

The project area is located within the Alhambra Creek Watershed which encompasses a 16.5 square mile area in north-central Contra Costa County. The mean annual precipitation for this region ranges from 15 to 25 inches and most of the precipitation is rainfall. The mean annual temperature is generally between 54° and 60°F and the mean freeze-free period is from 225 days at higher elevations to 275 days at lower elevations. Hydrologically, runoff is rapid from the hills, but slow from the alluvial plains. All but the larger streams are dry throughout the summer (Nomad Ecology 2014a).

An unnamed tributary of Arroyo del Hambre Creek occurs at Site 2 (Figure 2). Based on review of aerial photos it appears that a pond or seasonal wetland feeds the drainage west of the road via an earthen ditch which is then concrete-lined near the road and flows beneath the road via a culvert to a tributary east of the road that consists of riparian woodland habitat. In addition, the tributary is fed by an offsite pond located east of Alhambra Valley Road and stormwater runoff that is collected via earthen roadside ditches along both sides of Alhambra Valley Road. The tributary continues to flow east for approximately 2 miles until it meets Arroyo del Hambre. Arroyo del Hambre flows north into Alhambra Creek which flows through the city of Martinez and drains into Carquinez Strait at the Martinez Regional Shoreline (Nomad Ecology 2014a).

The topography is characterized by rolling hills covered predominantly by grasslands and scattered oak trees. Elevations in the project vicinity range from about 930 feet north of Site 1 to 790 feet north of Site 2 whereas Alhambra Valley Road ranges from about 850 feet at Site 1 to about 650 feet at Site 2 (CE&G 2014). The cut slope at Site 1 will have horizontal cuts of roughly 11 feet deep along the existing cut slope and vertical cut of up to five feet. Surface drainage along the road and in the project vicinity occurs primarily in the ephemeral drainages and ditches on either side of the road. The topography of the project area dictates flow of water west across the road and from south (Site 1) to north (Site 2) (CE&G 2014). Groundwater flow is considered to be governed by topography, subsurface geologic conditions (rock units/aquifers), and geologic contacts. Hydraulic gradient information for the project area has not been reported, however the gradient direction is likely to be toward the northeast based on the topographic profile and stream gradient of the area (USGS 1993).

Flood Hazard Areas

Special flood hazard areas are subject to 1% chance of flooding in any given year (100-year flood), also known as the base flood. The Federal Emergency Management Agency (FEMA) conducts flood elevation studies to determine flood-prone areas which are mapped for local communities to administer floodplain management regulations and mitigate flood damage as well as to determine flood insurance rates. FEMA produces flood insurance rate maps (FIRM) that show areas that have been evaluated which are updated periodically. The project area is not located within a 100-year floodplain zone (FEMA 2009).

a) Would the project violate any water quality standards or waste discharge requirements?

The culvert will be improved at the inlet and outlet with a headwall and rock slope protection to accommodate the road shoulder widening.

The tributary is considered other waters of the U.S. (and the State) that will be subject to regulation by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) that would require authorization for impacts to this feature by the USACE Nationwide Permit program and Water Quality Certification from the RWQCB for any discharges.

The National Pollutant Discharge Elimination System (NPDES) *Waste Discharge Requirements for Storm Water Discharges from Municipal Separate Storm Sewer Systems* for jurisdictions in the San Francisco Bay Municipal Regional Stormwater Permit (Order No. R2-2009-0074) has requirements for new development and redevelopment projects that create more than 10,000 square feet of impervious surface area (Provision C.3) (San Francisco Regional Water Quality Control Board 2011). The constructed project will create approximately 4,500 square feet (0.10 acre) of additional impervious surface area for the shoulder pavements and will not create any additional traffic lanes that could contribute to additional pollutant runoff. Therefore, the project will not violate this waste discharge permit (Contra Costa County Public Works Department 2013).

The project will be subject to the NPDES *General Permit for Storm Water Discharges Associated with Construction and Land Disturbances* (Order No. 2012-0006-DWQ). According to the permit, if soil disturbance will be less than 5 acres and the project qualifies for an erosivity waiver a Stormwater Pollution Prevention Plan (SWPPP) is not required to be prepared and submitted to the SWRCB. The area of soil disturbance is approximately 0.5 acre, therefore, a waiver will be requested. However, project contract specifications will still require the construction contractor to prepare a Water Pollution Control Plan, which is consistent with the SWPPP to identify applicable BMPs for water quality control that will be implemented during and after construction. Therefore, project impacts will be **less than significant**.

- b) *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

The project will not affect groundwater supply. Therefore, the project will have **no impact**.

- c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

The project will not substantially alter the existing drainage pattern of the area that would result in substantial on-site or off-site erosion or siltation. The existing roadside ditches in the project area will be relocated along the new road alignment and will be lined with rock which will help to minimize erosion or siltation into nearby culverts that drain into the adjacent tributary. The culvert improvements at Site 2 will not substantially alter the course of the tributary as the improvements are limited to placement of rock slope protection at the culvert openings. However project construction could result in erosion or siltation from soil disturbance. Implementation of applicable BMPs for water quality and erosion control will avoid and minimize potential impacts to the drainage area. Therefore, project impacts will be **less than significant**.

- d) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface run-off in a manner which would result in flooding on-or off-site?*

As noted above, the project will not substantially alter the existing drainage pattern of the area as the existing roadside ditches will be relocated along the new alignment. Storm drain inlets will be installed at Site 2 which will improve runoff but not substantially increase the rate or amount as there will not be a substantial change to the elevation and no new through travel lanes will be created. Therefore, project impacts will be **less than significant**.

- e) *Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

As noted above, the constructed project will create approximately 4,500 square feet (0.10 acre) of additional impervious surface area for the shoulder pavements. The project will not contribute to stormwater run-off which would exceed the capacity of existing or planned stormwater drainage systems because while the project will create additional surface run-off it will be negligible as no new through travel lanes will be created. Further, BMPs will be implemented during and after construction to avoid impacts to the tributary. Therefore, project impacts will be **less than significant**.

f) *Would the project otherwise substantially degrade water quality?*

The constructed project will not otherwise substantially degrade water quality as no new through travel lanes, with the exception of the four-foot wide shoulders, will be constructed that could contribute to polluted runoff. Further, BMPs will be implemented during and after construction to avoid impacts to water quality in the project vicinity. Therefore, project impacts will be **less than significant**.

g) *Would the project place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

The project is not located within a 100-year flood. Further, the project will not create housing. Therefore, the project will have **no impact**.

h) *Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?*

As noted above, the project is not located within a 100-year flood plain zone, and the project will not create any structures which would not impede or redirect flood flows. In addition, while there will be an increase in impervious area for the shoulders closer to residential properties, the proposed drainage improvements (i.e., installation of storm drain inlets, culvert improvements) will improve stormwater flows. Therefore, the project will have **no impact**.

i) *Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

The project will not expose people or structures to a significant risk of loss, injury or death involving flooding as the project will not create levees or dams. Therefore, the project will have **no impact**.

j) *Would the project the expose people or structures to risk of inundation by seiche, tsunami, or mudflow?*

The project area is not subject to seiche, tsunami, or mudflow (CDC 2009). Therefore, the project will have **no impact**.

X. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or the regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Would the project physically divide an established community?*

The project vicinity does not include an established community. Further, the project would not physically divide an established community because the project involves improvement to an existing roadway. Therefore, the project will have **no impact**.

b) *Would the project conflict with any applicable land use plan, policy, or the regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

The project does not conflict with any applicable land use plan, policy or regulation; the project is consistent with the Transportation and Circulation Elements goals and policies of the County General Plan:

- Roadway and Transit Goals #5-A: To provide a safe, efficient and balanced transportation system)
- Roadway and Transit Policy #5-9: Existing circulation facilities shall be improved and maintained by eliminating structural and geometric design deficiencies, and
- Roadway and Transit Policy #5-17: The design and the scheduling of improvements to arterials and collectors shall give priority to safety over other factors including capacity (Contra Costa County 2005g).

Further, impacts will be mitigated and minimized as described in the Biological Resource and Cultural Resource sections which are consistent with the goals and policies of the Conservation Element of the County General Plan (2005d). Therefore, the project will have **no impact**.

c) *Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?*

There is no applicable habitat conservation plan or natural community conservation plan for the project area. Therefore, the project will have **no impact**.

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XI. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss or availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Mineral resources such as crushed rock, sand, among other resources, are important minerals in the region as they provide the necessary components for construction materials including asphalt and concrete for current and future development in our region. The most important mineral resources that are currently mined in the County include diabase near Mt. Zion on the north side of Mt. Diablo, which provides crushed rock primarily for roadbase and streambank stabilizations; domestone sandstone, located in the eastern portion of the County just south of Camino Diablo and east of Vasco Road in the Byron area, which is the sole deposit in the state; and shale in the Port Costa area, which has been designated for protection by the County General Plan (Contra Costa County 2005h).

- a) *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

There are no mapped mineral resource areas in the project area (Contra Costa County 2005h). Therefore, the project will have **no impact**.

- b) *Would the project result in the loss or availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

There are no mapped mineral resource areas in the project area (Contra Costa County 2005h). As such, the project will not adversely affect the availability of a locally important mineral resource recovery site shown in the Contra Costa County General Plan. Therefore, the project will have **no impact**.

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XII. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of, excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Background

The effects of noise on people include subjective effects of annoyance, nuisance, and dissatisfaction. Persistent and escalating noise sources can affect one's overall health including stress-related illnesses, high blood pressure, hearing loss, speech interference, sleep disruption, and lost productivity (USEPA 2010). The main contributors to a community noise problem are transportation sources such as highways, railroads, and airport as they are the most pervasive and continual. Other temporary noise sources can add to the noise problem such as a jackhammer at a construction site. The dynamic of the noise problem are based on the relationship between the noise source, the person or place exposed to the noise (receiver or sensitive receptor) and the path the noise will travel from the noise source to the receiver/sensitive receptor. Since the ear is not as sensitive at some frequencies and sound pressure level as at others, several methods of expressing average noise levels over a period of time have been developed (HUD 2010).

Sound intensity is typically measured in decibels (dB) from a range of 0 (threshold of hearing) to 140 (threshold of pain); the higher the decibels, the greater the intensity. For example, a decibel level of 10 is the sound of leaves rustling, a decibel level of 30 is a whisper, a decibel level of 60 is freeway traffic, a decibel of 90 is a noisy urban street, and a decibel level of 140 is a nearby jet engine. Prolonged exposure from at least 75 dB increases tension affecting blood pressure, heart function, and nervous system; prolonged exposure from at least 85 dB causes physical damage to human hearing; above 90 dB results in permanent cell damage, at 140 dB feeling of pain, and 190 dB will rupture the eardrum and permanently damage the inner ear (HUD 2010).

Section 65302(f) of the California Government Code requires that a noise element be prepared as a part of all city and county general plans. This state law requires that a jurisdiction's noise element identify and work toward mitigation of noise problems in the community and include implementation measures and possible solutions that address any existing and perceivable noise problems. The Contra Costa County General Plan (2005) Noise Element follows the guidelines established by the California Department of Health Services entitled *Guidelines for the Preparation and Content of the Noise Element of the General Plan*, which defines noise metrics, discusses the process of noise element development, and present land use compatibility guidelines based on various noise levels and provides goals, policies, and implementation measures for consideration.

The existing noise environment in the project area is governed primarily by vehicular traffic traveling on Alhambra Valley Road. Based on the traffic noise contours prepared for the Noise Element, traffic noise levels range between 60 and 65 dBA L_{dn} at 100 feet from the centerline of Alhambra Valley Road (Contra Costa County 2005i). In general, construction equipment generates noise levels ranging from about 76 to 88 decibels at 50 feet from the noise source, with slightly higher levels of about 88 to 91 decibels for certain types of earthmoving and impact equipment (USEPA 1971).

Contra Costa County Code does not have a noise ordinance and therefore, does not specify construction or operational noise level limits. However, the Contra Costa County General Plan Noise Element (2005i) does specify that construction activities shall be concentrated during the hours of the day that are not noise-sensitive for adjacent land uses and should be commissioned to occur during normal work hours. Construction activities are generally limited to the hours between 7 a.m. to 5 p.m.

In addition, based on the Caltrans Standard Specifications Section 14-8.02, *Noise Control* (2010), which regulates construction noise for activities on state highways, the following rules are applicable to the project's construction activities.

- Do not exceed 86 dBA at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m.
- Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

Land Use Setting

The land uses in the surrounding the project area consists of large-parcel residences and rangeland. One single family residence adjoins Site 1 to the southwest, and 2 single-family residences adjoin Site 2; several single family residents along the east side of the road between both sites are situated uphill. Noise sensitive land uses consist of residences that adjoin the project area.

- a) *Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

The project will not increase ambient noise levels above what already exists. Construction of the project will temporarily increase the noise level in the project area. Construction of the project will take approximately 3 months to complete. While the project vicinity is rural in nature, there are a few residences near the project segments with 2 residences located immediately adjacent to road at Site 2. While the County General Plan provides a general guideline of conducting construction activities during the hours of the day that are not noise-sensitive for adjacent land uses, the following minimization measures will be implemented to reduce impacts to **less-than-significant** levels.

IMPACT NOI-1: TEMPORARY NOISE INCREASE DURING CONSTRUCTION

Construction activities would result in temporary ambient noise increases to nearby residences. The following measures will minimize potential noise disturbances during construction:

MINIMIZATION MEASURE NOI-1:

1. Locate stationary equipment as far as practical from noise-sensitive uses.
2. Turn off construction equipment when not in use, when feasible.
3. Comply with manufacturers' muffler requirements on all construction equipment engines.
4. Construction activities are generally limited to the hours between 7 a.m. to 5 p.m. Construction noise-generating activities (i.e., heavy equipment) will be limited to 8 a.m. to 5 p.m.
5. Provide advance written notification of construction activities to noise-sensitive uses around the construction sites. Notification will include a brief overview of the proposed Project and its purpose, as well as the proposed construction activities and schedule. It also will include the name and contact information of the project manager or representative responsible for resolving any noise concerns.

- b) *Would the project cause exposure of persons to or generation of, excessive ground borne vibration or ground borne noise levels?*

Traffic traveling on roadways is rarely the source of perceptible groundborne vibration. Exceptions to this occur when there is a significant discontinuity in the roadway surface. Vehicles traveling over a discontinuity can impart energy into the ground that can be perceived as groundborne vibration (Caltrans 2013). The project will result in a smoother road pavement surface. Therefore, the constructed project is not expected to result in perceptible groundborne vibration.

Construction activities include operation of large pieces of equipment (e.g., graders, excavators) that may result in the periodic temporary generation of groundborne vibration. While the project vicinity is rural in nature, there are a few residences near the project segments; two located immediately adjacent to the road at Site 2. Construction of the project will take approximately 3 months to complete and will not include significant vibrating equipment (i.e., pile drivers). Further, heavy construction equipment will be primarily be operated during the clearing/grubbing and grading phases which is anticipated to occur over a one-month period but not continuously, and would operate no more than five hours a day. Therefore, project impacts will be **less than significant**.

- c) *Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

The project will not contribute to a substantial permanent increase in the ambient noise levels in the project vicinity above what exists currently as the project will not create additional travel lanes. Further, the road improvements will create a smoother roadway which could reduce noise levels. Therefore, the project will have **no impact**.

- d) *Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

As discussed above, construction activities will result in a temporary increase in ambient noise levels above what exists currently. While the project vicinity is rural in nature, there are a few residences near the project segments. Implementation of Minimization Measure NOI-1 described above would reduce impacts to a **less-than-significant** level.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

There is no public airport located within 2 miles of the project area. Therefore, the project will have **no impact**.

- f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

The project is not located in the vicinity of a private airstrip. Therefore, the project will have **no impact**.

XIII. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Section 15126.2(d) of the CEQA Guidelines states that the lead agency shall discuss ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment including the removal of obstacles that would encourage population growth. Increases in the population may stress existing community service facilities, requiring construction of new facilities that could cause significant environmental effects.

- a) *Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The project is a road safety improvement and does not include new development or creation of new travel lanes or other infrastructure that could induce substantial population growth. Therefore, the project will have **no impact**.

- b) *Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

While the project will require sliver right-of-way acquisitions along the frontage of privately-owned parcels at Site 2 to accommodate the road shoulder improvements, the project will not result in the displacement of existing homes because no homes will be demolished or removed by the project. Therefore, the project will have **no impact**.

- c) *Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

The project will not displace residents because as stated above no residences will be removed or demolished. Therefore, the project would have **no impact**.

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XIV. PUBLIC SERVICES

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?

1 Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4 Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5 Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?*

1 Fire Protection?

The Contra Costa Fire Protection District provides fire protection services and emergency services for west Contra Costa County (Contra Costa County 2005k). The constructed project will not increase demand for fire protection services and thus no new government facilities or expansion of existing facilities will be required. However, to alleviate any disruption to fire protection services during construction, the contractor will contact local fire protection response services prior to project construction and provide at least one passable lane at all times during construction for fire protection vehicles. Therefore, project impacts will be **less than significant**.

2 Police Protection?

The Contra Costa County Sheriff's Department provides general public safety and law enforcement services in unincorporated areas of Contra Costa County (Contra Costa County 2005k). The constructed project will not increase demand for police services and thus no new government facilities or expansion of existing facilities will be required. However, to alleviate any disruption to police protection services during construction, the contractor will contact local police protection response services prior to project construction and provide at least one passable lane at all times during construction for police vehicles. Therefore, project impacts will be **less than significant**.

3 Schools?

The project area is located in the Martinez Unified School District (Contra Costa County 2015). The project will not increase demand for school services and thus no new government facilities or expansion of existing facilities will be required. Therefore, the project will have **no impact**.

4 Parks?

The project area is not located within or near a park. The constructed project will not increase demand for parks and thus no new facilities or expansion of existing facilities will be required. Therefore, the project will have **no impact**.

5 Other public facilities?

There are no other public facilities that would require new or expanded service facilities. Therefore, the project will have **no impact**.

XV. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>a) <i>Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?</i></p> <p>The project is a road safety improvement and does not include new development that could increase the use of existing parks or recreational facilities that could result in deterioration of facilities. Therefore, the project will have no impact.</p>				
<p>b) <i>Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?</i></p> <p>As noted above, the project is a road safety improvement and does not include new development that could require construction or expansion of existing recreational facilities. Therefore, the project will have no impact.</p>				

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XVI. TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Background

The Contra Costa Transportation Authority (CCTA) is a public agency formed to manage the County's transportation sales tax program and to conduct countywide transportation planning. CCTA is responsible for maintaining and improving the County's transportation system by planning, funding, and delivering critical transportation infrastructure projects and programs that connect the communities safely and efficiently including bicycle and pedestrian projects as described in the *2009 Countywide Bike and Pedestrian Plan*. In addition, the Transportation and Circulation Element of the County General Plan includes goals and policies.

Existing Traffic Conditions

Alhambra Valley Road is an arterial road that connects Highway 680 to the east and Highway 80 to the west in north-central Contra Costa County (Contra Costa County 20051). The most recent average daily traffic (ADT) count for this segment of Alhambra Valley Road is from east of Ferndale Road in 2006. The ADT was 1,106 for each direction. Morning traffic peaks occur between 7:00 a.m. and 8:30 a.m. and evening traffic peaks occur between 4:00 p.m. and 6:30 p.m. (pers. comm. Huerta 2015). Alhambra Valley Road has a speed limit of 20 miles per hour (mph) at Site 1 and 15 mph at Site 2.

Proposed Traffic Control Plan

Construction activities will be generally limited to the hours between 7:00 a.m. to 5:00 p.m. Construction of the project will require either one-way traffic control for 4 weeks or a 2-week full road closure from just west of Ferndale Road to west of Rancho La Boca Road. The proposed detour plan would require motorists traveling westbound Alhambra Valley Road to take Reliez Valley Road to Bear Creek Road (e.g., Reliez Valley Road-Pleasant Hill Road-Deer Hill Road-Happy Valley Road-Bear Creek Road; 4.9 miles; 9 minutes) and eastbound motorists would take the same route in the opposite direction at the intersection of Alhambra Valley Road and Bear Creek Road. Residents and motorists that use the road will be notified in advance of construction as follows:

- Local residents will be notified by letter a minimum of 10 calendar days in advance of the construction start date and of the road closure.
 - A press release will be run in local newspapers before construction.
 - Portable changeable message signs will be installed in various locations at least seven calendar days in advance of construction to notify motorists of the detour route and period.
 - Detour signs will be installed along the detour route to direct motorists prior to and during full road closure.
 - Driveway access to properties outside the project area will not be affected. Driveways for properties within the project area will remain accessible throughout the project.
- a) *Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

The constructed project will not conflict with applicable plans, ordinances or policies establishing measures of effectiveness for the performance of the circulation system as the purpose of the project is to improve the geometric design of the existing roadway to provide recovery areas for motorists and thus will not affect the existing performance of the circulation system (Contra Costa County 2005I, Contra Costa Transportation Authority [CCTA] 2009a,b). Further, no public transit service or bicycle facilities occur within the project vicinity at this time (County Connection 2015). While the constructed project will not affect traffic circulation nor interfere with other modes of motorized and non-motorized transportation, construction of the project will disrupt traffic circulation as it will result in traffic congestion and delays from one-way traffic control or the full road closure. However, it will be short-term and traffic control measures will be in place to provide advance notification to residences in the area and motorists to minimize disruption as described above. Therefore, project impacts will be **less than significant**.

- b) *Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

The project will not cause an increase in traffic to what already exists as the project will not increase the number of travel lanes. Rather, the project will improve a segment of an existing road to provide widened shoulders. While there will be additional traffic generated during project construction from construction-related vehicles and increased traffic flow on roads of the proposed detour route during the anticipated 2-week full road closure, the traffic increases are short-term. In addition, there are additional alternate routes other than the proposed detour route such as Highway 4 to Highway 80. Therefore, project impacts will be **less than significant**.

- c) *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

The project will not result in a change in air traffic patterns as there will be no increase in traffic levels or change in location that would pose a substantial safety risk. Therefore, the project will have **no impact**.

- d) *Would the project substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?*

The project will not substantially increase hazards due to a design feature as the purpose of the project is to improve design deficiency of the road. The construction area could result in driving hazards; however traffic control measures such as advanced notifications, on-site flaggers directing traffic through the construction area, temporary signage of construction zone speed limits, and other related construction zone safety precautions will minimize driving hazards. Therefore, project impacts will be **less than significant**.

- e) *Would the project result in inadequate emergency access?*

The project would not result in inadequate emergency access. Local emergency response services will be contacted by the construction contractor to coordinate alternate routes before construction begins. In addition, traffic control measures during construction will provide access for emergency vehicles and the full width of the unfinished roadway will be made passable and open for use by local and emergency traffic at the end of each working day. Therefore, project impacts will be **less than significant**.

- f) *Would the project conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

As discussed above, Alhambra Valley Road is a rural road and thus there are no existing or proposed pedestrian facilities. According to the *Contra Costa Countywide Bicycle and Pedestrian Plan* (Plan), Alhambra Valley Road within the project area is not a designated bicycle facility but is a proposed Class II/III bicycle facility. While the Plan shows proposed bicycle routes they do not represent specific suggested alignments, rather they represent corridors and general connections to link existing segments (CCTA 2009). Alhambra Valley Road is regularly used by bicyclists. While the widened paved shoulders will not be designated as a bicycle facility at this time, the widened shoulders will provide improved shared use of the road for bicyclists and motorists within the project segments and thus will not conflict with future bicycle class designation. Therefore, the project will have **no impact**.

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XVII. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Water Supply

The project area is located within the EBMUD water service area (Contra Costa County 2005m).

Wastewater Treatment

The project area is not located within a service area due to its location in a rural area, which relies on septic tanks and leach fields (Contra Costa County 2005m).

Solid Waste

Solid waste disposal in the project area is serviced by Republic Waste Services (2015).

- a) *Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

The project will not exceed wastewater requirements because the completed project would not result in the need for wastewater treatment. Therefore, the project will have **no impact**.

- b) *Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

The project will not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities because the completed project will not require or result in the need for water or wastewater services. Therefore, the project will have **no impact**.

- c) *Would the project require or result in the construction of new storm water drainage facilities, the construction of which could cause significant environmental effects?*

The constructed project will re-establish the existing stormwater drainage facilities which include grading roadside ditches and tying into new storm drains at Site 2 as well as modifying an existing culvert at Site 2 to accommodate the road improvements. Water quality and erosion control practices will be implemented during construction to minimize impact to water in the tributary. Therefore, project impacts will be **less than significant**.

- d) *Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

The completed project will not require water service, and any water needed during construction activities would be provided by water trucks from off-site water sources. Therefore, the project will have **no impact**.

- e) *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

The completed project will not require wastewater treatment services. Therefore, the project will have **no impact**.

- f) *Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's waste disposal needs?*

The project will not generate the need for a new solid waste facility. Solid waste generated by the project would be limited to construction debris, including vegetative matter and asphalt and concrete, generated by the excavation of exiting roadway and construction of associated improvements. Therefore, project impacts will be **less than significant**.

- g) *Would the project comply with federal, state and local statutes and regulations related to solid waste?*

The project specifications will require that the contractor dispose of solid waste generated from construction in accordance with federal, state and local regulations. Therefore, the project will have **no impact**.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

The project will not degrade the quality of the environment. There are no natural or historic resources of importance that will be impacted due to absence in the project area or implementation of mitigation and avoidance measures as described in the Biological Resources and Cultural Resources sections. Therefore, project impacts will be **less than significant with mitigation incorporated**.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

There are no County capital improvement projects proposed in the area at this time (pers. comm. Halle). However, a similar road improvement project along Alhambra Valley Road at Bear Creek Road intersection to the west will be undergoing construction in summer 2015. This project would not result in significant cumulative impacts as it is limited and habitat impacts have been mitigated for. In addition, similar measures discussed for this project will be implemented to avoid and minimize impacts to people and the environment. Therefore, project impacts will be **less than significant**.

- c) *Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

The project will not cause substantial adverse direct or indirect effects on human beings as impacts will be limited and measures will be implemented to offset and minimize impacts as described in the Air Quality, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, and Transportation/Traffic sections. Therefore, project impacts will be **less than significant**.

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APPENDIX A: MITIGATION AND MONITORING REPORTING PLAN (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
IV. BIOLOGICAL RESOURCES					
IMPACT BIO-1 ALAMEDA WHIPSNAKE AND CALIFORNIA RED-LEGGED FROG CRITICAL HABITAT	MITIGATION MEASURE BIO-1A: Purchase Alameda whipsnake and California red-legged credits from a U.S. Fish and Wildlife Service (USFWS) - and California Department Fish and Wildlife (CDFW)-approved conservation bank.	Prior to construction	CCCPWD Environmental Services Division	CCCPWD Environmental Services Division	
	AVOIDANCE MEASURES BIO-1A: 1. Submit the name(s) and credentials of biologists experienced in identifying Alameda whipsnakes and California red-legged frogs to USFWS and CDFW.	At least 15 days prior to construction	CCCPWD Environmental Services Division	CCCPWD Environmental Services Division	
	2. Submit to the USFWS a proposed California red-legged frog relocation protocol.			CCCPWD Environmental Services Division	
	3. Conduct educational training for all construction personnel including subcontractors. Trained personnel to sign record of training sheet. If necessary, the training and fact sheet will be translated for non-English speaking personnel.	Prior to start of any ground-disturbing activities	CCCPWD Resident Engineer, Environmental Services Division, Biologist	CCCPWD Resident Engineer and Environmental Services Division, Biologist	
	4. Conduct a preconstruction survey for special-status species listed in Table 3 of the attached Environmental Checklist Form.	Prior to any project-related ground disturbance	CCCPWD Biologist	CCCPWD Environmental Services Division	
	5. Install ESA/wildlife exclusion fence as shown on project plans. Fence shall be a minimum of 42 inches tall and the bottom 6 inches buried if feasible or otherwise adequately secured to prevent species from crawling under the fence.	Within 2 weeks prior to start of construction Inspect fence daily Make repairs within 24	CCCPWD Resident Engineer and Environmental Services Division	CCCPWD Resident Engineer, Environmental Services Division, Biologist	

APPENDIX A: MITIGATION AND MONITORING REPORTING PLAN (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
IMPACT BIO-1 (cont'd.)	Stakes will face the work area. The fencing will remain in place throughout the duration of the project.	hours of discovery			
	6. Remove vegetation within the areas to be graded and 3 feet beyond the fence shall be removed. Shrub and understory vegetation will be removed by hand to prevent mortality associated with mowers or other landscaping equipment; grassland vegetation will be removed by hand-held equipment such as weed whackers.	Prior to ESA/wildlife exclusion fence installation and after Biologist has surveyed and cleared areas	CCCPWD Contractor, Biologist	CCCPWD Resident Engineer, Environmental Services Division, Biologist	
	7. Designated Monitor(s) to monitor and maintain on-site compliance with avoidance and minimization measures described herein.	After vegetation removal and grading and during construction After Biologist has trained Designated Monitor(s) (i.e., CCCPWD Resident Engineer)	CCCPWD Resident Engineer, Contractor	CCCPWD Resident Engineer, Environmental Services Division, Biologist	
	8. Halt all construction within 50 feet of Alameda whipsnake and/or California red-legged sighting and immediately notify CCCPWD Resident Engineer. Construction will not resume until either: a) the snake and/or frog has moved at least 50 feet away from all construction work on its own; or (b) until direction received from CCCPWD Environmental Services Division based on USFWS consultation.	During construction	CCCPWD Resident Engineer, Contractor, Biologist	CCCPWD Resident Engineer, Environmental Services Division, Biologist	
	9. If California red-legged frogs, eggs, or tadpoles are found during preconstruction surveys or during construction, halt construction and immediately notify the CCCPWD Resident	During construction	CCCPWD Resident Engineer, Contractor, Biologist	CCCPWD Resident Engineer, Environmental Services Division, Biologist	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
IMPACT BIO-1 (cont'd.)	Engineer for direction from CCCPWD Environmental Services Division based on USFWS consultation.				
	<p>10. Limit number and size of access routes and staging areas, and the total area of the activity and clearly demarcate.</p> <p>Restrict equipment and vehicles to the existing road, areas to be graded, and staging areas, and limit speed to 20 miles per hour.</p>	During construction	CCCPWD Resident Engineer, Contractor	CCCPWD Resident Engineer, Environmental Services Division, Biologist	
	<p>11. Cover all materials capable of entrapping wildlife (i.e., trenches, pipes) at the end of each work day to prevent entrapment.</p> <p>Prior to commencing daily construction activities, stored equipment, materials, and debris will be thoroughly inspected by the USFWS-approved biologist or designated monitor.</p>	During construction	CCCPWD Resident Engineer, Contractor	CCCPWD Resident Engineer, Environmental Services Division, Biologist	
	<p>12. Collect and dispose of all trash daily at the end of each work day into a securely-covered container. Remove as necessary or upon project completion.</p>	During and after construction	CCCPWD Resident Engineer, Contractor	CCCPWD Resident Engineer, Environmental Services Division, Biologist	
	<p>13. No pets are allowed from project personnel anywhere in the project area, at any time during the day, during the entire construction period.</p>	During construction	CCCPWD Resident Engineer, Contractor	CCCPWD Resident Engineer, Environmental Services Division, Biologist	
	<p>14. No firearms are allowed in the project area except for those carried by authorized security personnel, and local, State or Federal law enforcement officials.</p>	During construction	CCCPWD Resident Engineer, Contractor	CCCPWD Resident Engineer, Environmental Services Division, Biologist	

APPENDIX A: MITIGATION AND MONITORING REPORTING PLAN (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
<p>IMPACT BIO-1 (cont'd.)</p>	<p>15. At a minimum, implement the following BMPs:</p> <ul style="list-style-type: none"> a. All equipment will be properly maintained and free of leaks. Servicing of vehicles and construction equipment including fueling, cleaning, and maintenance will occur at least 65 feet away from any riparian habitat or water body. If not feasible, servicing and maintenance areas will be adequately contained to prevent spills from entering the riparian habitat. Spill containment kits will be kept on site at all times during construction operations and/or staging or fueling of equipment. b. Dust control measures will include use of water trucks to control dust in excavation-and-fill areas, rocking temporary access road entrances and exits, and covering of temporary soil stockpiles when weather conditions require. c. Erosion and sediment control measures for graded areas shall include a combination of silt fences, fiber rolls, etc. as appropriate along toes of slopes or along edges of staging areas. Materials with plastic or synthetic mono-filament netting shall not be used to avoid wildlife from getting entangled (i.e., fiber rolls). d. Disturbed areas shall be re-vegetated with an appropriate mixture of native seeds for the upland annual grassland upon project completion in the fall. Seeded areas shall be blanketed with the appropriate erosion 	<p>During construction</p>	<p>CCCPWD Resident Engineer, Contractor</p>	<p>CCCPWD Resident Engineer, Environmental Services Division, Biologist</p>	

APPENDIX A: MITIGATION AND MONITORING REPORTING PLAN (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
IMPACT BIO-1 (cont'd.)	control material that will not entangle or trap wildlife (i.e., tightly-woven, non-mono-filament netting).				
	16. Upon project completion, the ESA and wildlife exclusion fencing shall be removed and the area cleaned of debris and trash and returned to pre-project conditions or better. The Biologist shall monitor fence removal.	After construction	CCCPWD Resident Engineer, Contractor	CCCPWD Resident Engineer, Environmental Services Division, Biologist	
POTENTIAL IMPACT BIO-2 SAN FRANCISCO DUSKY-FOOTED WOODRAT	AVOIDANCE MEASURE BIO-2: Biologist shall conduct a preconstruction survey. If woodrats and/or their stick nest houses are found within the construction area, Biologist shall mark nests and work shall not occur in the area until further direction is received from the CCCPWD Environmental Services Division based on consultation with CDFW.	Prior to and during construction	Biologist, CCCPWD Contractor	CCCPWD Resident Engineer, Environmental Services Division	
POTENTIAL IMPACT BIO-3 WESTERN POND TURTLE	AVOIDANCE MEASURE BIO-3: Biologist shall conduct a preconstruction survey. If western pond turtles and/or their egg-laying sites are found within the construction area, Biologist shall mark nest sites and work shall not occur in the area until further direction is received from the CCCPWD Environmental Services Division based on consultation with CDFW.	Prior to and during construction	Biologist, CCCPWD Contractor	CCCPWD Resident Engineer, Environmental Services Division	

APPENDIX A: MITIGATION AND MONITORING REPORTING PLAN (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
POTENTIAL IMPACT BIO-4 PALLID BAT	AVOIDANCE MEASURE BIO-4: Biologist shall conduct a preconstruction survey. If any bat roost sites are present in habitat features planned for removal, Biologist shall mark roost sites and work shall not occur in the area until further direction is received from the CCCPWD Environmental Services Division based on consultation with CDFW.	Prior to and during construction	Biologist, CCCPWD Contractor	CCCPWD Resident Engineer, Environmental Services Division	
POTENTIAL IMPACT BIO-5 BRIDGE'S COAST RANGE SHOULDERBAND SNAIL	AVOIDANCE MEASURE BIO-5: Biologist shall conduct a survey prior to ground-disturbing activities. If any snails are found, work shall not occur in the area until further direction is received from the CCCPWD Environmental Services Division.	Prior to and during construction	Biologist, CCCPWD Contractor	CCCPWD Resident Engineer, Environmental Services Division	
POTENTIAL IMPACT BIO-6 NESTING BIRDS AND RAPTORS	<ol style="list-style-type: none"> 1. Biologist shall survey for bird and raptor species that have the potential to occur in the project vicinity as identified in Table 2 (attached). If active nests are identified within the survey radii, work shall stop in the area until non-disturbance buffers are established by the Biologist as determined in cooperation with the USFWS Migratory Bird Regional Permit Office and CDFW. The Biologist shall monitor bird/raptor behavior to determine if construction activities are causing nest disturbance. 2. If it is determined that construction activities are resulting in nest disturbance, work shall cease immediately until further direction from the CCCPWD Resident Engineer as determined by the Biologist and CCCPWD Environmental Services Division. 	Prior to and during construction	Biologist, CCCPWD Contractor	CCCPWD Resident Engineer, Environmental Services Division	

APPENDIX A: MITIGATION AND MONITORING REPORTING PLAN (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
IMPACT BIO-7 RIPARIAN WOODLAND HABITAT	MITIGATION MEASURE BIO-2: 1. CCCPWD Environmental Services Division will obtain necessary permits from the U.S. Army Corps of Engineers-San Francisco District (USACE), San Francisco Regional Water Quality Control Board (RWQCB), and CDFW which will likely require mitigation to offset permanent and temporary impacts. Impacts will be mitigated by purchase of credits from a mitigation bank. If a mitigation bank is not available, the CCCPWD will consult with the agencies to determine the appropriate mitigation. If feasible, on-site mitigation will be pursued.	Prior to construction	CCCPWD Environmental Services Division	CCCPWD Environmental Services Division	
	2. Temporarily impacted areas will be hydroseeded with an appropriate native wetland seed mix; the seed mixture will not contain invasive non-native species, only sterile non-native species.	During (as necessary) and after construction	CCCPWD Contractor	CCCPWD Resident Engineer, Environmental Services Division	
POTENTIAL IMPACT BIO-7A UNAUTHORIZED DISCHARGES TO RIPARIAN HABITAT	AVOIDANCE MEASURE BIO-7A: 1. Prepare a Water Pollution Control Plan to identify applicable best management practices (BMPs) that will be implemented to avoid and minimize impacts to the tributary and riparian habitat.	Prior to and during construction	CCCPWD contractor	CCCPWD Resident Engineer, Environmental Services Division, Biologist	
IMPACT BIO-8 SEASONAL WETLAND	MITIGATION MEASURE BIO-3 1. Same as Mitigation Measure BIO-2 2. Same as Mitigation Measure BIO-2	Same as Mitigation Measure BIO-2	Same as Mitigation Measure BIO-2	Same as Mitigation Measure BIO-2	

APPENDIX A: MITIGATION AND MONITORING REPORTING PLAN (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
POTENTIAL IMPACT BIO-8A UNAUTHORIZED DISCHARGES TO SEASONAL WETLAND	AVOIDANCE MEASURE BIO-8A: 1. Same as Avoidance Measure BIO-7A	Same as Avoidance Measure BIO-7A	Same as Avoidance Measure BIO-7A	Same as Avoidance Measure BIO-7A	
V. CULTURAL RESOURCES					
POTENTIAL IMPACT CUL-1 ARCHAEOLOGICAL RESOURCES	1. Contractor shall be notified of the possibility of encountering archaeological materials during ground-disturbing activities and shall be educated on the types of historic and pre-historic Native American period materials that may be encountered.	Prior to construction	CCCPWD Environmental Services Division	CCCPWD Resident Engineer, Environmental Services Division	
	2. If an inadvertent discovery is made, Contractor shall cease all ground-disturbing activities in the area of the discovery. 3. Contractor shall immediately notify the CCCPWD Resident Engineer who will then request a qualified archaeologist to evaluate the finding(s).	During construction	CCCPWD contractor	CCCPWD Resident Engineer, Environmental Services Division	
	4. If the finding(s) is determined to be potentially significant, the archaeologist in consultation with the appropriate Native American tribal representative or historical society shall develop a research design and treatment plan outlining management of the resource, analysis, and reporting of the find.	During construction	CCCPWD Environmental Services Division	CCCPWD Environmental Services Division	

APPENDIX A: MITIGATION AND MONITORING REPORTING PLAN (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
POTENTIAL IMPACT CUL-2 PALEONTOLOGICALLY-SENSITIVE RESOURCES	AVOIDANCE MEASURE CUL-2: 1. Contractor shall be notified of the possibility of encountering paleontological materials during ground-disturbing activities and shall be educated on the types of paleontological materials (i.e., fossilized bone, teeth, shell, etc.) that may be encountered and procedures to be followed if discovered.	<p align="center">Prior to construction</p>	<p align="center">CCCPWD Environmental Services Division</p>	<p align="center">CCCPWD Environmental Services Division</p>	
	2. Conduct paleontological resources monitoring by a qualified Paleontologist during ground-disturbing activities that impact areas that occur within the paleontologically-sensitive Briones and Monterey Formations at Site 1. Monitoring is not recommended in Site 2. 3. Upon discovery of possible fossil material, or the exposure of a paleontologically-sensitive geologic unit, the Paleontologist will request the CCCPWD Resident Engineer to briefly redirect and/or halt project-related ground disturbance, as appropriate, while he/she recovers the material for expedient evaluation. If necessary, develop appropriate salvage measures in conformance with the Society of Vertebrate Paleontology Guidelines as outlined in the attached Environmental Checklist Form. 4. If there is a finding in areas not being monitored by an on-site Paleontologist (Site 2), the Contractor shall implement the measures outlined above and immediately notify the CCCPWD Resident Engineer to request a qualified Paleontologist to address the finding.	<p align="center">During construction</p>	<p align="center">Qualified Paleontologist, Contractor</p>	<p align="center">CCCPWD Resident Engineer, Environmental Services Division</p>	

APPENDIX A: MITIGATION AND MONITORING REPORTING PLAN (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
POTENTIAL IMPACT CUL-3: NATIVE AMERICAN REMAINS	AVOIDANCE MEASURE CUL-3: Contractor shall stop work in the area of any discovery and immediately notify CCCPWD Resident Engineer who will then contact the County Coroner, Native American Heritage Commission, and a qualified archeologist to determine how to appropriately deal with the remains in accordance with the California Health and Safety Code (Health and Safety Code Section 7050.5[b]).	During construction	CCCPWD contractor	CCCPWD Resident Engineer, Environmental Services Division	
XII. NOISE					
IMPACT NOI-1 TEMPORARY NOISE INCREASE DURING CONSTRUCTION	MINIMIZATION MEASURE NOI-1: 1. Provide advance written notification of construction activities to noise-sensitive uses around the construction sites. Notification shall include a brief overview of the project and its purpose as well as the proposed construction activities and schedule. It also shall include the name and contact information of the CCCPWD Resident Engineer to resolve reported noise concerns.	Prior to construction	CCCPWD Resident Engineer or Contractor	CCCPWD Environmental Services Division	

APPENDIX A: MITIGATION AND MONITORING REPORTING PLAN (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
POTENTIAL IMPACT NOI-1 (cont'd.)	2. Locate stationary equipment as far as practical from noise-sensitive uses. 3. Turn off construction equipment when not in use, when feasible. 4. Comply with manufacturers' muffler requirements on all construction equipment engines. 5. Construction activities are generally limited to the hours between 7 a.m. to 5 p.m. Construction noise-generating activities will be limited to 8 a.m. to 5 p.m.	During construction	CCCPWD Contractor	CCCPWD Resident Engineer, Environmental Services Division	

APPENDIX B

Response to Comments

LIST OF COMMENT LETTERS

1. CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (June 2, 2015)

Claudia Gemberling

From: Stanley, Robert@Wildlife <Robert.Stanley@wildlife.ca.gov>
Sent: Friday, May 22, 2015 9:08 AM
To: Claudia Gemberling
Subject: Alhambra Valley Road Safety Improvements Project (Rancho la Boca and Ferndale Road)

Good Morning Claudia,

I had the CEQA announcement for the NOC for the Alhambra Valley Road Safety Project, Rancho La Boca to Ferndale Segment come across my desk and had a few minor comments.

1. Avoidance Measure Bio-1, it may be beneficial to note somewhere the Alameda whipsnake season of avoidance is March 1 to July 1, the last Alhambra Valley Road Safety Projects had specific Project confines and occurrences that allowed us to construct earlier than usual, so without a rationale or negative finding those dates may be imposed. | 1
2. Avoidance Measure Bio-3, for Western Pond Turtle, it may be beneficial to note that if relocation events occurring during the turtle nesting season that the eggs/nest would be considered impacted, unless it could be verified as to where the location is and be properly avoided. If the nest cannot be located, it would be considered impacted and a species recovery plan or habitat enhancement plan may be required in consultation with CDFW. April through July is the most sensitive season. | 2
3. Avoidance Measure BIO-6, we would want surveys for passerines a minimum of 250 feet from the site, this does not meet buffers, those would be species specific and dealt with at the time of discovery. For Raptors CDFW requests surveys occur within 1,000 feet of the Project Site, focusing on large trees and structures using binoculars from a far, this does not need to be a 1,000 foot radius walking survey. The concern is for Golden Eagles which have a high potential to occur in this area as we know from Ave's portion of this Project near the Alameda county line. | 3
4. CDFW would also recommend using staging areas in previously disturbed plots of land and not moving up into the hillside to reduce impacts to special status species and their associated habitat. | 4
5. For seasonal wetlands and culverts if there is a defined bed, bank or channel or a connection to a system with a defined bed, bank or channel then an LSAA may be warranted. | 5
6. My last concern is CTS, were there any focused surveys or rationale as to why they are not present on the Project site? | 6

If you would like to setup a call time to talk about these items next week please let me know what works best for you.

Robert Stanley
Environmental Scientist
California Department of Fish and Wildlife
7329 Silverado Trail
Napa, CA 94558

Phone: (707)944-5573
Fax: (707)-944-5563

**COMMENT LETTER #1: CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
(June 2, 2015)**

Comment 1:

Avoidance Measure Bio-1, it may be beneficial to note somewhere the Alameda whipsnake season of avoidance is March 1 to July 1, the last Alhambra Valley Road Safety Projects had specific Project confines and occurrences that allowed us to construct earlier than usual, so without a rationale or negative finding those dates may be imposed.

Response:

You had pointed out for the last Alhambra Valley Road Safety Improvements project west of the site (at Bear Creek Road) that the reason for imposing the March 1 to July 1 avoidance window is due to the Alameda whipsnake (AWS) breeding/nesting season. We pointed out that the project area did not contain suitable breeding/nesting habitat due to limited small mammal burrow refugia and routine disturbance from the immediately adjacent roadway and roadside vegetation control by the County and property owner to minimize fire hazards. The circumstances are the same for this project. CCCPWD will provide this rationale along with supporting information in the Lake and Streambed Alteration Agreement (LSAA) application.

Comment 2:

Avoidance Measure Bio-3, for Western Pond Turtle, it may be beneficial to note that if relocation events occurring during the turtle nesting season that the eggs/nest would be considered impacted, unless it could be verified as to where the location is and be properly avoided. If the nest cannot be located, it would be considered impacted and a species recovery plan or habitat enhancement plan may be required in consultation with CDFW. April through July is the most sensitive season.

Response:

Comment noted. It is not anticipated that western pond turtles or their nests will be present within the project impact area. As noted in the Biological Resources section (IV) of the CEQA document, while there is suitable habitat in the project vicinity, including ponds west of Site 2 that hold water throughout the year and are bordered with emergent vegetation, project activities will not directly affect the ponds. The project will impact a seasonal wetland at Site 1 and a tributary at Site 2. Both of these features are not considered suitable nesting habitat. The seasonal wetland is located at the base of a slope that adjoins Alhambra Valley Road of which a sliver will be impacted for slope fill to support the shoulder widening. The seasonal wetland appears to be routinely disturbed by livestock grazing and disking. The tributary at Site 2 will be impacted for improvements at the culvert openings. The upstream portion is located within a landscaped area of a residential property and the banks consist of steep-angled hardscape landscaping (i.e., concrete blocks, stones); downstream of the tributary the

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
CONTRA COSTA COUNTY PUBLIC WORKS DEPARTMENT
ALHAMBRA VALLEY ROAD SAFETY IMPROVEMENTS PROJECT (#0662-6R4097)
COUNTY CEQA FILE #: CP 15-02

bank closest to the road also contains hardscape (concrete blocks) and is located within a heavy riparian stand that contains overgrown low-lying vegetation. Regardless, as noted in the CEQA document, if pond turtles and/or their nests are discovered in the project impact area during the preconstruction surveys or during construction that cannot be avoided, CCCPWD will consult with CDFW, and as noted by your comment, to determine if a species recovery plan or enhancement plan is appropriate. CCCPWD will provide this rationale along with supporting information in the LSAA application.

Comment 3:

Avoidance Measure BIO-6, we would want surveys for passerines a minimum of 250 feet from the site, this does not meet buffers, those would be species specific and dealt with at the time of discovery. For Raptors CDFW requests surveys occur within 1,000 feet of the Project Site, focusing on large trees and structures using binoculars from a far, this does not need to be a 1,000 foot radius walking survey. The concern is for Golden Eagles which have a high potential to occur in this area as we know from Ave's portion of this Project near the Alameda county line.

Response:

Comment noted. This area is not located near the Alameda County line and therefore, not considered to have a high potential for golden eagles as experienced at the Camino Tassajara road improvement project near the Alameda County line. Further, no suitable nesting habitat was identified in the biological study area for golden eagles. Only suitable foraging and wintering habitat was identified within the open grasslands.

Comment 4:

CDFW would also recommend using staging areas in previously disturbed plots of land and not moving up into the hillside to reduce impacts to special status species and their associated habitat.

Response:

Comment noted. Considering the rural nature of the area and lack of previously disturbed areas, CCCPWD surveyed anticipated staging areas on properties that will already be impacted. CCCPWD will mitigate impacted area(s) to AWS and California red-legged frog upland habitat by compensatory mitigation to the Ohlone Preserve Conservation Bank and will return the impacted area(s) to pre-project conditions with a native hydroseed mix application. While these area(s) have been cleared for contractor use, CCCPWD will notify the contractor that, if feasible, previously disturbed areas are preferred.

Comment 5:

For seasonal wetlands and culverts if there is a defined bed, bank or channel or a connection to a system with a defined bed, bank or channel then an LSAA may be warranted.

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
CONTRA COSTA COUNTY PUBLIC WORKS DEPARTMENT
ALHAMBRA VALLEY ROAD SAFETY IMPROVEMENTS PROJECT (#0662-6R4097)
COUNTY CEQA FILE #: CP 15-02

Response:

Comment noted. The seasonal wetland at Site 1 is not considered CDFW jurisdiction as it does not have a defined bed, bank or channel nor does it connect to a system with a defined bed, bank or channel. A LSAA will be obtained for impacts to the tributary at Site 2.

Comment 6:

My last concern is CTS, were there any focused surveys or rationale as to why they are not present on the project site?

Response:

No surveys were conducted as the study area is west of the species current and historic range for the Central California DPS and they are not anticipated to occur in the project impact area.